

Table 1-1. Summary of Production Well Information

| Item | Arroyo Well | Well 52 | Ventura Well | Windsor Well | LAWC#3 | LAWC#5 | Rubio Canyon 4 | Las Flores 2 |
|----------------------------|-----------------------------------|---------------------------|----------------------|----------------------|--|------------------------------------|--------------------|---------------------------------------|
| State Well Number | NA | NA | NA | NA | 01N/12W-05P01 S | 01N/12W-05Q02 S | NA | 01N/12W-08H02 S |
| Location | NA | NA | NA | NA | 729 W. Harriet St. Altadena, CA | 564 W. Harriet St. Altadena, CA | NA | 148 Mountain View St. Altadena, CA |
| Well Status | Closed | Closed | Closed | Closed | Active | Active | Active | Active |
| Date Drilled | 1930 (re-sleeved in 1975) | 1977 | 1924 | 1969 | 1924 | 1971 | 1924 | 1926 |
| Well Depth (ft bgs) | 668 | 647 | 473 | 600 | 601 | 588 | 626 | 540 |
| Screened Interval (ft bgs) | 127 to 624 and 224 to 324 | 250 to 367 and 372 to 630 | 102 to 468 | 320 to 585 | 261 to 501 | 390 to 556 | 160 to 347 | 240 to 390 and 474 to 510 |
| Well Diameter (in) | 26 originally; re-sleeved with 20 | 20 | 26 | 20 | 16-in (0 to 455 ft bgs) 14-in (455 to 593 ft bgs) | 20-in | 20 | 18 |
| Pump Make | NA | U.S. Titan | Aurora | Aurora | US Electric Motors | Worthington | NA | Layne and Bowler |
| Pump Production (gpm) | 2,127 ^(a) | 1,700 ^(b) | 1,900 ^(b) | 1,260 ^(b) | 1080 gpm ^(c) | 1050 gpm ^(c) | 586 ^(d) | 735 ^(e) |
| Depth to Pump Bowl (ft) | NA | 411 | 315 | 420 | 385 ft | 340 ft | NA | Unknown |
| Pump Controls | NA | Automatic | Automatic | Automatic | Manual/telemetry controls | Manual/telemetry controls | NA | Manual controls |

bgs – below ground surface

ft – feet

gpm – gallons per minute

in – inches

NA – not available

- (a) Per information provided by PWP in their response to comments of the August 2004 Draft Policy Memorandum 97-005 Documentation, the production rate is the average rate from June 1996 to January 1997; Pumping rates during this time were 1,700; 2,038; 2,323; 2,343; 2,503; and 1,852 gpm.
- (b) Based on the pumping test conducted June 5, 2000 as recorded in the well form for the DWSAP.
- (c) Based on information provided by the LAWC.
- (d) Average operating pumping rate for the years 2000 to 2002.
- (e) Based on results of a pumping test conducted May 30, 2002 as recorded in the well form for the DWSAP.

Table 2-1. Summary of Pumping Rate Information Used to Simulate the Capture Zone Analysis

| Well | High Pumping Scenario ⁽¹⁾ | | Low Pumping Scenario ⁽¹⁾ | | Time-Weighted Average Scenario ⁽²⁾ | |
|------------------------------|--------------------------------------|-----------------------------|-------------------------------------|-----------------------------|---|---|
| | Average Extraction Rate (gpm) | Months Pumping at this Rate | Average Extraction Rate (gpm) | Months Pumping at this Rate | Time-Weighted Average (gpm) | Time-Weighted Average (acre ft/mo) ⁽³⁾ |
| Arroyo | 1750 | 5 | 1450 | 7 | 1575 | 212 |
| Well 52 | 1750 | 5 | 1450 | 7 | 1575 | 212 |
| Ventura | 1750 | 5 | 0 | 7 | 729 | 98 |
| Windsor | 1750 | 5 | 0 | 7 | 729 | 98 |
| Lincoln#3 | 784 | 4 | 55.79 | 8 | 298 | 40 |
| Lincoln#5 | 896 | 4 | 47.24 | 8 | 330 | 44 |
| Valley#1 | 910 | 6 | 1.03 | 6 | 456 | 61 |
| Valley#2 | 9.42 | 12 | 0 | 0 | 9 | 1 |
| Valley#3 | 0.70 | 12 | 0 | 0 | 1 | 0.13 |
| Valley#4 | 804 | 6 | 1.22 | 6 | 403 | 54 |
| LCID#1 | 37.94 | 12 | 0 | 0 | 38 | 5 |
| LCID#6 | 311 | 3 | 9.98 | 9 | 85 | 11 |
| Rubio#4 | 586 | 6 | 0 | 6 | 293 | 39 |
| Rubio#7 | 1160 | 6 | 0 | 6 | 580 | 78 |
| Park 2-3 (Pasadena Cemetery) | 41.42 | 12 | 0 | 0 | 41 | 6 |
| Las Flores#2 | 123 | 12 | 0 | 0 | 123 | 17 |
| NEW-1 | 250 | 12 | 250 | 12 | 250 | 34 |
| NEW-2 | 250 | 12 | 250 | 12 | 250 | 34 |
| NIW-1 | 167 | 12 | 167 | 12 | 167 | 22 |
| NIW-2 | 167 | 12 | 167 | 12 | 167 | 22 |
| NIW-3 | 167 | 12 | 167 | 12 | 167 | 22 |

(1) Extraction rates for the production wells have been based on anticipated system operation for the four PWP wells (Arroyo, 52, Ventura and Windsor) and monthly production data in Geosciences database from January 2000 - January 2003. For the PWP wells, there will be one system capable of treating 7,000 gpm. However, that will only be the case for 5 months/yr. For the other 7 months, groundwater pumping will be from Arroyo and Well 52 only at flow rates of 1,800 to 4,000 gpm. For the other production wells, pumping data were reviewed for the stated time period and determinations were made for high and low rates and when these rates were in use throughout the year.

(2) Time-weighted averages were derived by summing the products of the high average multiplied by number of months pumped and the low average multiplied by number of months pumped and then dividing by 12 months.

(3) Gallons per minute (gpm) were converted to acre foot per month (acre ft/mo) by dividing amount in gpm by 7,4346.

TABLE 2-2
Summary of Constituents Detected in the Valley Water Company Wells #1, #2, #3, and #4

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value |
|----------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|
| CALCIUM | µg/L | 38 | 38 | 100% | 86 | 140 |
| MAGNESIUM | µg/L | 38 | 38 | 100% | 12 | 48 |
| POTASSIUM | µg/L | 38 | 38 | 100% | 1.8 | 4.8 |
| SODIUM | µg/L | 38 | 38 | 100% | 36 | 88 |
| RADIUM 228 | PCI/L | 1 | 1 | 100% | 0.24 | 0.24 |
| STRONTIUM-90 | PCI/L | 1 | 1 | 100% | 0.44 | 0.44 |
| TRITIUM | PCI/L | 1 | 1 | 100% | 164 | 164 |
| CARBON DIOXIDE | µg/L | 7 | 7 | 100% | 25 | 43 |
| TETRACHLOROETHYLENE | µg/L | 278 | 293 | 95% | 0.80 | 290 |
| URANIUM (PCI/L) | PCI/L | 31 | 33 | 94% | 2.6 | 11 |
| BARIUM | µg/L | 29 | 32 | 91% | 130 | 365 |
| TOTAL TRIHALOMETHANES | PCI/L | 173 | 193 | 90% | 0.50 | 81 |
| CHLOROFORM | µg/L | 181 | 206 | 88% | 0.50 | 29 |
| VANADIUM | µg/L | 7 | 8 | 88% | 3.8 | 11 |
| GROSS ALPHA | PCI/L | 44 | 51 | 86% | 0.90 | 16 |
| BORON | µg/L | 6 | 8 | 75% | 52 | 150 |
| TRICHLOROETHYLENE | µg/L | 162 | 230 | 70% | 0.50 | 9.6 |
| GROSS BETA | PCI/L | 23 | 34 | 68% | 2.3 | 17 |
| CIS-1,2-DICHLOROETHYLENE | µg/L | 130 | 213 | 61% | 0.40 | 56 |
| CHROMIUM, HEXAVALENT | µg/L | 9 | 16 | 56% | 0.10 | 2.2 |
| BROMODICHLOROMETHANE | µg/L | 100 | 197 | 51% | 0.50 | 26 |
| DIBROMOCHLOROMETHANE | µg/L | 92 | 196 | 47% | 0.50 | 32 |
| CHROMIUM (TOTAL) | µg/L | 16 | 36 | 44% | 4.2 | 22 |
| PERCHLORATE | µg/L | 27 | 64 | 42% | 4.0 | 8.0 |
| COPPER | µg/L | 13 | 35 | 37% | 2.2 | 6.9 |
| RADIUM 226 | PCI/L | 8 | 23 | 35% | 0.31 | 1.4 |
| IRON | µg/L | 12 | 35 | 34% | 110 | 480 |
| ARSENIC | µg/L | 10 | 32 | 31% | 1.5 | 28 |
| MANGANESE | µg/L | 9 | 35 | 26% | 5.0 | 46 |
| BROMOFORM | µg/L | 48 | 196 | 24% | 0.50 | 5.3 |
| ZINC | µg/L | 7 | 35 | 20% | 7.6 | 21 |
| ALUMINUM | µg/L | 6 | 32 | 19% | 0.10 | 110 |
| MERCURY | µg/L | 6 | 32 | 19% | 0.30 | 2.3 |
| 1,1-DICHLOROETHANE | µg/L | 34 | 186 | 18% | 0.50 | 1.4 |
| XYLENES (TOTAL) | µg/L | 14 | 180 | 8% | 1.0 | 4.0 |
| NICKEL | µg/L | 2 | 26 | 8% | 11 | 14 |
| DICHLOROMETHANE | µg/L | 8 | 164 | 5% | 0.50 | 1.4 |
| TRANS-1,2-DICHLOROETHYLENE | µg/L | 9 | 205 | 4% | 0.50 | 0.90 |
| BROMOCHLOROMETHANE | µg/L | 7 | 176 | 4% | 0.60 | 1.2 |
| 1,1-DICHLOROETHYLENE | µg/L | 7 | 184 | 4% | 0.50 | 1.4 |
| CARBON TETRACHLORIDE | µg/L | 1 | 195 | 1% | 0.60 | 0.60 |

Note: The data summarized in this table includes samples from June 1985 to May 2002.

TABLE 2-3

**Summary of Constituents Detected in Groundwater Collected from Jet Propulsion
Laboratory Monitoring Wells During the Long-Term Quarterly Monitoring Program**

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value |
|--------------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|
| Gross Alpha | pCi/L | 4 | 4 | 100% | 2.0 | 12 |
| Gross Beta | pCi/L | 4 | 4 | 100% | 3.0 | 6.0 |
| Fluoride | mg/L | 45 | 45 | 100% | 0.15 | 1.22 |
| Sodium | mg/L | 1158 | 1163 | 100% | 2.5 | 122 |
| Calcium | mg/L | 1159 | 1165 | 99% | 1.8 | 180 |
| Potassium | mg/L | 1145 | 1163 | 98% | 0.99 | 9.7 |
| Magnesium | mg/L | 1144 | 1163 | 98% | 0.25 | 58 |
| Sulfate | mg/L | 202 | 207 | 98% | 2.1 | 194.00 |
| Chloride | mg/L | 201 | 207 | 97% | 7.6 | 160 |
| Strontium | mg/L | 274 | 290 | 94% | 0.052 | 1.2 |
| Nitrate | mg/L | 189 | 207 | 91% | 0.07 | 17.9 |
| Iron | mg/L | 899 | 1153 | 78% | 0.012 | 9.1 |
| Barium | mg/L | 217 | 290 | 75% | 0.021 | 0.28 |
| Zinc | mg/L | 149 | 290 | 51% | 0.020 | 1.0 |
| Chloroform | µg/L | 1006 | 2,163 | 47% | 0.30 | 58 |
| Dibromofluoromethane | µg/L | 268 | 676 | 40% | 3.9 | 2,850 |
| Perchlorate | mg/L | 684 | 1,741 | 39% | 0.0032 | 58.5 |
| Chromium | mg/L | 686 | 2,062 | 33% | 0.0006 | 0.42 |
| Trichloroethene | µg/L | 721 | 2,177 | 33% | 0.30 | 73 |
| Tetrachloroethene | µg/L | 633 | 2,163 | 29% | 0.06 | 33 |
| Tributyltin | µg/L | 2 | 7 | 29% | 0.0020 | 0.0020 |
| Aluminum | mg/L | 40 | 162 | 25% | 0.050 | 1.1 |
| Carbon Tetrachloride | µg/L | 454 | 2,163 | 21% | 0.30 | 310 |
| Atrazine | µg/L | 3 | 20 | 15% | 0.070 | 0.080 |
| Copper | mg/L | 39 | 290 | 13% | 0.010 | 2.1 |
| Di-n-butylphthalate | µg/L | 19 | 158 | 12% | 0.50 | 20 |
| Simazine | µg/L | 2 | 20 | 10% | 0.10 | 0.10 |
| Nickel | mg/L | 24 | 290 | 8% | 0.010 | 0.11 |
| bis(2-Ethylhexyl)phthalate | µg/L | 18 | 227 | 8% | 0.50 | 98 |
| Lead | mg/L | 103 | 1,318 | 8% | 3.00E-05 | 0.051 |
| 1,1-Dichloroethane | µg/L | 167 | 2,163 | 8% | 0.30 | 3.9 |
| Arsenic | mg/L | 106 | 1,396 | 8% | 0.0015 | 0.017 |
| 1,1-Dichloroethene | µg/L | 130 | 1,822 | 7% | 0.40 | 12 |
| Trichlorotrifluoroethane | µg/L | 103 | 1,525 | 7% | 0.50 | 9.2 |
| Methylene Chloride | µg/L | 139 | 2,241 | 6% | 0.30 | 15 |
| Cyanide | mg/L | 12 | 195 | 6% | 0.0050 | 0.021 |
| Antimony | mg/L | 17 | 290 | 6% | 0.0070 | 0.021 |
| 1,4-Dioxane | µg/L | 20 | 466 | 4% | 0.4 | 10 |
| Methyl-t-Butyl Ether (MTBE) | µg/L | 45 | 1182 | 4% | 0.30 | 7.1 |
| Chromium, Hexavalent | mg/L | 72 | 1,894 | 4% | 0.0050 | 0.055 |
| 1,2-Dichloroethane | µg/L | 78 | 2,163 | 4% | 0.30 | 8.9 |
| Bromodichloromethane | µg/L | 71 | 2,163 | 3% | 0.40 | 1.9 |
| Methyl Isobutyl Ketone | µg/L | 61 | 2,115 | 3% | -- | -- |
| cis-1,2-Dichloroethene | µg/L | 48 | 2163 | 2.2% | 0.3 | 3.4 |
| Pyrene | µg/L | 3 | 158 | 2% | 33 | 48 |
| 1,1,2-Trichlorotrifluoroethane | µg/L | 11 | 596 | 2% | 0.60 | 6.0 |
| Acenaphthene | µg/L | 2 | 138 | 1% | 35 | 36 |
| Nitrosodipropylamine | µg/L | 2 | 138 | 1% | 22 | 24 |
| 2-Chlorophenol | µg/L | 2 | 144 | 1% | 50 | 59 |
| 4-Chloro-3-methylphenol | µg/L | 2 | 144 | 1% | 59 | 63 |
| 4-Nitrophenol | µg/L | 2 | 144 | 1% | 79 | 79 |
| Phenol | µg/L | 2 | 144 | 1% | 49 | 53 |
| Trichlorofluoromethane | µg/L | 25 | 1,822 | 1% | 0.30 | 1.8 |
| N-Nitrosodimethylamine | µg/L | 2 | 152 | 1% | 0.0022 | 0.0022 |
| 2,4-Dinitrotoluene | µg/L | 2 | 158 | 1% | 39 | 41 |
| 2-Butanone | µg/L | 21 | 1,705 | 1% | 0.70 | 420 |
| Ethylbenzene | µg/L | 22 | 1,854 | 1% | 0.30 | 14.0 |
| Bromochloromethane | µg/L | 23 | 2085 | 1.1% | 0.3 | 0.8 |
| Dibromochloromethane | µg/L | 23 | 2,163 | 1% | 0.40 | 2.2 |
| Mercury | mg/L | 3 | 289 | 1% | 2.00E-04 | 3.00E-04 |
| Pentachlorophenol | µg/L | 2 | 203 | 1% | 81 | 84 |
| Styrene | µg/L | 19 | 2,163 | 1% | 0.40 | 0.90 |
| Acetone | µg/L | 7 | 827 | 0.8% | 1 | 25 |
| Toluene | µg/L | 18 | 2,163 | 1% | 0.30 | 1.2 |
| Fluoranthene | µg/L | 1 | 136 | 1% | 39 | 39 |
| Cadmium | mg/L | 2 | 290 | 1% | 0.0050 | 0.0070 |
| Molybdenum | mg/L | 2 | 290 | 1% | 0.050 | 0.075 |
| Chloromethane | µg/L | 14 | 2,085 | 0.7% | 0.80 | 1.4 |
| benzo (g,h,i) perylene | µg/L | 1 | 156 | 1% | 10 | 10 |
| benzo(k)fluoranthene | µg/L | 1 | 156 | 1% | 11 | 11 |
| Chrysene | µg/L | 1 | 156 | 1% | 21 | 21 |
| Indeno(1,2,3-c,d)pyrene | µg/L | 1 | 156 | 1% | 10 | 10 |
| Phenanthrene | µg/L | 1 | 156 | 1% | 29 | 29 |
| benzo(a)pyrene | µg/L | 1 | 195 | 1% | 16 | 16 |
| benzo(b)fluoranthene | µg/L | 1 | 195 | 1% | 28 | 28 |
| 1,1,1-Trichloroethane | µg/L | 9 | 1,822 | 0.5% | 0.50 | 1.4 |
| 1,2,3-Trichlorobenzene | µg/L | 8 | 1,744 | 0.5% | 0.50 | 1.2 |
| Chloroethane | µg/L | 9 | 2,230 | 0.4% | -- | -- |
| Selenium | mg/L | 1 | 290 | 0.3% | 0.012 | 0.012 |
| Thallium | mg/L | 1 | 290 | 0.3% | 0.10 | 0.10 |
| benzo(a)anthracene | µg/L | 1 | 331 | 0.3% | 12 | 12 |
| Bromoform | µg/L | 5 | 1,822 | 0.3% | 0.50 | 1.5 |
| Carbon disulfide | µg/L | 2 | 827 | 0.2% | 0.60 | 1.10 |

TABLE 2-3

**Summary of Constituents Detected in Groundwater Collected from Jet Propulsion
Laboratory Monitoring Wells During the Long-Term Quarterly Monitoring Program**

| Analyte | Units | Number of Detections | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value |
|--------------------------|--------------|-------------------------------------|----------------------------------|-----------------------------------|---------------------------------------|---------------------------------------|
| m,p-Xylene | µg/L | 4 | 1,822 | 0.2% | 0.60 | 1.3 |
| trans-1,2-Dichloroethene | µg/L | 4 | 2163 | 0.2% | 0.4 | 1.8 |
| Naphthalene | µg/L | 3 | 1,813 | 0.2% | 0.70 | 1.9 |
| Benzene | µg/L | 3 | 1,822 | 0.2% | 0.50 | 1.3 |
| 1,2,4-Trichlorobenzene | µg/L | 2 | 1,474 | 0.1% | 27 | 31 |
| Hexane | µg/L | 1 | 749 | 0.1% | 4.6 | 4.6 |
| 1,4-Dichlorobenzene | µg/L | 2 | 1,552 | 0.1% | 28 | 32 |
| 1,3-dichloropropane | µg/L | 2 | 2,152 | 0.1% | -- | -- |
| 1,2,3-Trichloropropane | µg/L | 1 | 1,744 | 0.1% | 0.80 | 0.80 |
| Vinyl Chloride | µg/L | 1 | 1,822 | 0.1% | 0.70 | 0.70 |

Note: The data summarized in this table includes samples collected from September 1992 through all of 2003 during JPL's Quarterly Monitoring Program.

Table 2-4
Summary of Analyses Conducted for Specific Wells During the Comprehensive Groundwater Monitoring Event

| ANALYSES REQUESTED ⁷ | TOTAL PETROLEUM HYDROCARBONS-DIESEL | TOTAL PETROLEUM HYDROCARBONS-GASOLINE | VOLATILES | 1,4-DIOXANE | SEMOVOLATILES | DIOXIN AND FURAN (TETRA THROUGH OCTA CONGENERS) | FORMALDEHYDE | ETHYLENE GLYCOL | PESTICIDES/PCBS | ORGANOPHOSPHORUS PESTICIDES | NITROGEN & PHOSPHOROUS PESTICIDES | PARAQUAT & DIQUAT | CARBAMATES (ALDICARBS) | CHLOROPHENOXO HERBICIDES | CHLOROPICRIN GROUP |
|--|-------------------------------------|--|--|--------------------------|--------------------------|---|------------------|-----------------|--------------------------|-----------------------------|-----------------------------------|---------------------------------|--------------------------|--------------------------|--------------------------|
| METHOD | EPA 8015-MODIFIED | EPA 8015-MODIFIED | EPA 524.2 | EPA 8270 SIM | EPA 8270 | EPA 8290 | EPA 8315 | EPA 8015 | EPA 508.1 | EPA 8141A | EPA 507 | EPA 549.1 | EPA 531.1 | EPA 8151 | EPA 551 |
| LABORATORY | APCL | APCL | APCL | APCL | West Coast Anal. | Frontier Anal. | West Coast Anal. | APCL | APPL | APPL | APPL | APCL | APCL | APCL | APPL |
| CONTAINER TYPE | GLASS AMBER | VOA VIAL | VOA VIAL | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER |
| PRESERVATIVES | CHILL to 4 °C | ADD HCl to pH < 2 CHILL to 4 °C NO HEADSPACE | ADD HCl to pH < 2 CHILL to 4 °C NO HEADSPACE | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | MONO-Cl-ACETIC CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C |
| ANALYTICAL HOLDING TIMES | < 7 DAYS | < 7 DAYS | < 14 DAYS | < 7/40 DAYS ² | < 7/40 DAYS ² | < 30 DAYS | < 3/3 DAYS | < 14 DAYS | < 7/40 DAYS ² | < 7/40 DAYS ² | < 7/40 DAYS ² | < 7/40 DAYS ² | < 7/40 DAYS ² | < 7/40 DAYS ² | < 7/40 DAYS ² |
| NO. BOTTLES PER ANALYSIS ³ | (2) - 1000 mL | (3) - 40 mL | (3) - 40 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 1000 mL |
| SAMPLE LOCATION | | | | | | | | | | | | | | | |
| Monitoring Wells | | | | | | | | | | | | | | | |
| MW-3-3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-3-5 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-4-1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-4-2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-4-5 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-8 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-10 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-12-3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-12-5 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-14-2 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-14-4 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-17-3 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-17-4 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-18-3 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-18-4 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-19-3 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-19-5 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-21-3 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-21-5 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MW-24-2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 12 | 12 | 22 | 22 | 22 | 4 | 6 | 6 | 22 | 6 | 6 | 6 | 6 | 6 | 6 |
| Field Blanks | | | | | | | | | | | | | | | |
| Equipment Rinsate Blanks ³ | 2 | 2 | 4 | 4 | 4 | 1 | 1 | 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 |
| Trip Blanks ⁴ | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Source Blanks ⁵ | 1 | 1 | 4 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| Duplicates | | | | | | | | | | | | | | | |
| Duplicates | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| Matrix Spike/Matrix Spike Duplicate ⁶ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TOTAL | 18 | 18 | 56 | 32 | 32 | 9 | 11 | 11 | 32 | 11 | 11 | 11 | 11 | 11 | 11 |

NOTES:

¹ The number of sample bottles may be reduced as analyses may be combined, depending on the type of equipment used by the laboratory.

² extraction; the second number indicates the holding time to analysis.

³ rate of one per three sampling locations; for the multiport wells, each port is a sampling location.

⁴ Trip Blanks will be included with every cooler containing samples for VOC analyses.

⁵ of water used for equipment blanks; the number of samples are estimated.

⁶ per 20 samples; each MS/MS sample counts for two analyses.

conductivity will be measured in the field for all wells.

⁸ Samples will be collected from production wells during a future sampling event.

⁹ Holding time is 14 days under refrigeration and 6 months if frozen.

Table 2-4
Summary of Analyses Cor

| ANALYSES REQUESTED ⁷ | GLYPHOSATE | ENDOTHALL | 1,2,3-TCP | EDB & DBCP | EXPLOSIVES | NDMA, N-nitrosodi-n-propylamine N-nitrosodiphenylamine | DISSOLVED METALS | MERCURY | ANTIMONY SELENIUM THALLIUM | CHROMIUM (VI) | PERCHLORATE | CHLORATES | CYANIDE | BROMIDE CHLORIDE FLUORIDE SULFATE | NITRATE (AS N) NITRITE (AS N) | GROSS ALPHA & BETA ACTIVITY |
|--|---|---|-------------------------------|-------------------------------|--------------------------|--|---|---|----------------------------------|---------------|------------------------------|------------------|---------------|--|---|-----------------------------------|
| METHOD | EPA 547 | EPA 548 | EPA 504.1 SIM | EPA 504.1 | EPA 8330 | EPA 1625 Modified | EPA 200.8 | EPA 245.1 | EPA 200.8 or 200.9 | EPA 218.6 | EPA 314 | EPA 314 Modified | EPA 335.2 | EPA 300.0 | EPA 300.0 | EPA 900.0 |
| LABORATORY | APCL | APCL | FGL | APCL | APCL | APCL | APPL | APPL | APPL | APCL | APCL | APCL | APCL | APCL | APCL | APCL |
| CONTAINER TYPE | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | GLASS AMBER | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE |
| PRESERVATIVES | Na ₂ O ₃ for chlorinated water sources CHILL to 4 °C | Na ₂ O ₃ for chlorinated water sources CHILL to 4 °C | CHILL to 4 °C NO HEADSPACE | CHILL to 4 °C NO HEADSPACE | CHILL to 4 °C | ADD HNO ₃ to pH < 2 CHILL to 4 °C | ADD HNO ₃ to pH < 2 CHILL to 4 °C | ADD HNO ₃ to pH < 2 CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | D EDA (pre-preserved bottle) | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | ADD HNO ₃ to pH < 2 CHILL to 4 °C NO HEADSPACE | |
| ANALYTICAL HOLDING TIMES | <14 DAYS/6 MONTHS ⁹ | <7 DAYS/40 DAYS | < 14 DAYS | < 14 DAYS | < 7/40 DAYS ² | < 7/40 DAYS ² | < 6 MONTHS | 28 DAYS | < 6 MONTHS | 24 HOURS | < 28 DAYS | < 28 DAYS | 14 DAYS | < 28 DAYS | < 48 HOURS | < 6 MONTHS |
| NO. BOTTLES PER ANALYSIS ¹ | (1) 125-mL | (1) - 1000 mL | (3) 40-mL | (2) - 1000 mL | (2) - 1000 mL | (2) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL |
| SAMPLE LOCATION | | | | | | | | | | | | | | | | |
| Monitoring Wells | | | | | | | | | | | | | | | | |
| MW-3-3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-3-5 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-4-1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-4-2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-4-5 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-8 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-10 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-12-3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-12-5 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-14-2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-14-4 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-17-3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-17-4 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-18-3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-18-4 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-19-3 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-19-5 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-21-3 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MW-21-5 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MW-24-2 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TOTAL | 6 | 6 | 12 | 12 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 13 |
| Field Blanks | | | | | | | | | | | | | | | | |
| Equipment Rinsate Blanks ³ | 1 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| Trip Blanks ⁴ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Source Blanks ⁵ | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 |
| Duplicates | | | | | | | | | | | | | | | | |
| Duplicates | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 |
| Matrix Spike/Matrix Spike Duplicate ⁶ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TOTAL | 11 | 11 | 18 | 18 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 30 | 31 | 32 | 32 | 21 |

NOTES:

¹ The number of sample bottles may be reduced as analyses may be combined, depending on the type of equipment used by the laboratory.

² extraction; the second number indicates the holding time to analysis.

³ rate of one per three sampling locations; for the multiport wells, each port is a sampling location.

⁴ Trip Blanks will be included with every cooler containing samples for VOC analyses.

⁵ of water used for equipment blanks; the number of samples are estimated.

⁶ per 20 samples; each MS/MS sample counts for two analyses.

⁷ conductivity will be measured in the field for all wells.

⁸ Samples will be collected from production wells during a future sampling event.

⁹ Holding time is 14 days under refrigeration.

Table 2-4
Summary of Analyses Cor

| ANALYSES REQUESTED ⁷ | MBAS (DETERGENTS) (SURFACTANTS) | TOTAL DISSOLVED SOLIDS | TOTAL ORGANIC CARBON | HARDNESS (AS CaCO ₃) | LABORATORY pH | BIOLOGICAL OXYGEN DEMAND (BOD) | CHEMICAL OXYGEN DEMAND (COD) | COLOR | ALKALINITY | TOTAL SUSPENDED SOLIDS (TSS) | COLIFORM BACTERIA (FECAL) | TOTAL COLIFORMS | HETEROTROPHIC PLATE COUNT | ODOR |
|--|---------------------------------------|---------------------------|---|-------------------------------------|------------------|--------------------------------------|---------------------------------|---------------|-------------------------------|------------------------------------|--|--|--|--------------------------|
| METHOD | EPA 425.1 | EPA 160.1 | EPA 415.1 | EPA 130 | EPA 150.1 | EPA 405.1 | EPA 410.4 | EPA 110.2 | EPA 310.1 | EPA 160.2 | SM 9221E | SM 9221B | SM 9215 B | EPA 140.1 or SM 2150B |
| LABORATORY | APCL | APCL | APCL | APCL | APCL | APCL | APCL | APCL | APCL | | | | | |
| CONTAINER TYPE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE | POLYETHYLENE |
| PRESERVATIVES | CHILL to 4 °C | CHILL to 4 °C | ADD H ₂ SO ₄ to pH < 2 CHILL to 4 °C NO HEADSPACE | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C | CHILL to 4 °C NO HEADSPACE | CHILL to 4 °C | ADD Na ₂ S ₂ O ₃ CHILL to 4 °C | ADD Na ₂ S ₂ O ₃ CHILL to 4 °C | ADD Na ₂ S ₂ O ₃ CHILL to 4 °C | CHILL to 4 °C |
| ANALYTICAL HOLDING TIMES | 48 HOURS | < 7 DAYS | 28 DAYS | < 6 MONTHS | IMMEDIATELY | 28 DAYS | 28 DAYS | < 48 HOURS | 14 DAYS | < 7 DAYS | 30 HOURS | 30 HOURS | 30 HOURS | 24 HOURS |
| NO. BOTTLES PER ANALYSIS ⁸ | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL | (1) - 125 mL |
| SAMPLE LOCATION | | | | | | | | | | | | | | |
| Monitoring Wells | | | | | | | | | | | | | | |
| MW-3-3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-3-5 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-4-1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-4-2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-4-5 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-7 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-10 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-12-3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-12-5 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-16 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-14-2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-14-4 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-17-3 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-17-4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-18-3 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-18-4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-19-3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-19-5 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-21-3 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | (8) | (8) | (8) | (8) | (8) |
| MW-21-5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| MW-24-2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | (8) | (8) | (8) | (8) | (8) |
| TOTAL | 22 | 22 | 13 | 13 | 22 | 13 | 13 | 22 | 13 | 0 | 0 | 0 | 0 | 0 |
| Field Blanks | | | | | | | | | | | | | | |
| Equipment Rinsate Blanks ³ | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | 3 | 0 | 0 | 0 | 0 | 0 |
| Trip Blanks ⁴ | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Source Blanks ⁵ | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Duplicates | | | | | | | | | | | | | | |
| Duplicates | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| Matrix Spike/Matrix Spike Duplicate ⁶ | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 31 | 32 | 22 | 19 | 30 | 19 | 19 | 29 | 21 | 0 | 0 | 0 | 0 | 0 |

NOTES:

¹ The number of sample bottles may be reduced as analyses may be combined, depending on the type of the equipment used by the laboratory.

² extraction; the second number indicates the holding time to analysis.

³ rate of one per three sampling locations; for the multiport wells, each port is a sampling location.

⁴ Trip Blanks will be included with every cooler containing samples for VOC analyses.

⁵ of water used for equipment blanks; the number of samples are estimated.

⁶ per 20 samples; each MS/MS sample counts for two analyses.

⁷ conductivity will be measured in the field for all wells.

⁸ Samples will be collected from production wells during a future sampling event.

⁹ Holding time is 14 days under refrigeration.

TABLE 2-5
Summary of Constituents Detected in Groundwater from JPL Monitoring Wells
Obtained During the Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value |
|---------------------------------------|----------------------|-------------------|-------------------|------------------------|------------------------|------------------------|
| PH | UNIT | 22 | 22 | 100% | 6.77 | 9.39 |
| ALKALINITY | mg/L | 13 | 13 | 100% | 123 | 273 |
| CHLORIDE | mg/L | 22 | 22 | 100% | 8.4 | 141 |
| SULFATE (SO ₄ --) | mg/L | 22 | 22 | 100% | 12.6 | 189 |
| TOTAL DISSOLVED SOLIDS (TDS) | mg/L | 22 | 22 | 100% | 182 | 967 |
| HARDNESS (TOTAL) AS CACO ₃ | mg/L | 13 | 13 | 100% | 92.95 | 564 |
| ARSENIC | µg/L | 21 | 22 | 95% | 0.5 | 2.8 |
| BORON | µg/L | 21 | 22 | 95% | 9.2 | 242 |
| CALCIUM | µg/L | 21 | 22 | 95% | 14600 | 141000 |
| CHROMIUM | µg/L | 21 | 22 | 95% | 0.5 | 9.2 |
| MANGANESE | µg/L | 21 | 22 | 95% | 0.1 | 86.6 |
| VANADIUM | µg/L | 21 | 22 | 95% | 0.8 | 14.4 |
| TURBIDITY | NTU | 18 | 19 | 95% | 0.27 | 38 |
| ALPHA, GROSS | pCi/L | 13 | 14 | 93% | 1.4 | 13.5 |
| BETA, GROSS | pCi/L | 13 | 14 | 93% | 2.09 | 9.16 |
| BARIUM | µg/L | 20 | 22 | 91% | 15.7 | 194 |
| MAGNESIUM | µg/L | 20 | 22 | 91% | 334 | 46700 |
| POTASSIUM | µg/L | 20 | 22 | 91% | 1900 | 3720 |
| SODIUM | µg/L | 20 | 22 | 91% | 14500 | 48300 |
| FLUORIDE | mg/L | 19 | 22 | 86% | 0.740 | 4.1 |
| NITRATE (NO ₃ -) AS N | mg/L | 19 | 22 | 86% | 0.29 | 17.4 |
| LEAD | µg/L | 19 | 22 | 86% | 0.048 | 1.1 |
| COPPER | µg/L | 18 | 22 | 82% | 0.7 | 4 |
| NICKEL | µg/L | 18 | 22 | 82% | 0.5 | 5.7 |
| CHLOROFORM | µg/L | 18 | 22 | 82% | 0.4 | 16.6 |
| COBALT | µg/L | 17 | 22 | 77% | 0.044 | 0.3 |
| TRICHLOROETHENE (TCE) | µg/L | 16 | 22 | 73% | 0.5 | 7.8 |
| TOTAL ORGANIC CARBON | mg/L | 9 | 13 | 69% | 1.055 | 7.3 |
| BIOLOGIC OXYGEN DEMAND | mg O ₂ /L | 9 | 13 | 69% | 0.670 | 2.6 |
| SELENIUM | µg/L | 15 | 22 | 68% | 0.3 | 2 |
| ZINC | µg/L | 15 | 22 | 68% | 3.7 | 80.7 |
| CHLOROFORM | µg/L | 4 | 6 | 67% | 1.2 | 26 |
| TOTAL TRIHALOMETHANES | µg/L | 4 | 6 | 67% | 1.25 | 27 |
| N-NITROSODIPHENYLAMINE | µg/L | 14 | 22 | 64% | 0.00148 | 0.0249 |
| COLOR | COLOR | 14 | 22 | 64% | 5 | 25 |
| TETRACHLOROETHENE (PCE) | µg/L | 12 | 22 | 55% | 0.3 | 21.2 |
| CHLORATE | mg/L | 11 | 22 | 50% | 0.073 | 0.875 |
| ALUMINUM | µg/L | 10 | 22 | 45% | 1.2 | 173 |
| ANTIMONY | µg/L | 10 | 22 | 45% | 0.091 | 1.8 |
| MERCURY | µg/L | 9 | 22 | 41% | 0.058 | 0.087 |
| BERYLLIUM | µg/L | 9 | 22 | 41% | 0.4 | 1.8 |
| IRON | µg/L | 9 | 22 | 41% | 45.5 | 1650 |
| 1,4-DIOXANE | µg/L | 9 | 22 | 41% | 0.6 | 3 |
| CHROMIUM (VI) | mg/L | 8 | 22 | 36% | 0.0005 | 0.0027 |
| PERCHLORATE | µg/L | 7 | 22 | 32% | 3.05 | 13300 |
| CARBON TETRACHLORIDE | µg/L | 7 | 22 | 32% | 0.62 | 157 |
| RDX | µg/L | 6 | 22 | 27% | 0.66 | 27.3 |
| TPH-DIESEL | mg/L | 3 | 12 | 25% | 0.01 | 0.02 |
| 2,4,6-TRINITROTOLUENE (TNT) | µg/L | 5 | 22 | 23% | 2.2 | 25.7 |
| THALLIUM | µg/L | 5 | 22 | 23% | 0.033 | 0.2 |
| METHYLENE CHLORIDE (DICHLOROMETHANE) | µg/L | 4 | 20 | 20% | 0.400 | 79.5 |
| FOAMING AGENTS (MBAS) | mg/L | 4 | 21 | 19% | 0.05 | 0.07 |
| 1,1-DICHLOROETHANE | µg/L | 4 | 22 | 18% | 0.3 | 0.5 |
| N-NITROSODIMETHYLAMINE (NDMA) | µg/L | 4 | 22 | 18% | 0.00044 | 0.0056 |
| TPH-MOTOR OILS | mg/L | 2 | 12 | 17% | 0.03 | 0.09 |
| 1,2,3-TRICHLOROPROPANE | µg/L | 2 | 12 | 17% | 0.024 | 0.071 |
| HMX | µg/L | 2 | 22 | 9% | 0.7 | 2.5 |
| 1,1,2-TRICHLOROTRIFLUOROETHANE | µg/L | 2 | 22 | 9% | 2.1 | 5.9 |
| 1,1-DICHLOROETHENE | µg/L | 2 | 22 | 9% | 0.3 | 8.2 |
| CIS-1,2-DICHLOROETHENE | µg/L | 2 | 22 | 9% | 0.4 | 2.7 |
| BROMIDE | mg/L | 2 | 22 | 9% | 0.120 | 0.44 |
| CADMUM | µg/L | 2 | 22 | 9% | 0.046 | 0.049 |
| BROMOCHLOROMETHANE | µg/L | 1 | 22 | 5% | 18 | 18 |
| ETHYLBENZENE | µg/L | 1 | 22 | 5% | 1.1 | 1.1 |
| STYRENE | µg/L | 1 | 22 | 5% | 0.5 | 0.5 |
| TRICHLOROFUOROMETHANE | µg/L | 1 | 22 | 5% | 0.4 | 0.4 |
| PROPACHLOR | µg/L | 1 | 22 | 5% | 0.28 | 0.28 |
| N-NITROSODI-N-PROPYLAMINE | µg/L | 1 | 22 | 5% | 0.125 | 0.125 |
| SILVER | µg/L | 1 | 22 | 5% | 0.024 | 0.024 |

Notes:

µg/L = micrograms per liter
 µg/mL = micrograms per milliliter
 mg/L = milligrams per liter
 NTU = Nephelometric Turbidity Units
 mg O₂/L = milligrams of oxygen per liter
 pCi/L = picocuries per liter
 pg/L = picograms per liter

TABLE 2-6
Chemicals Identified as Used at JPL from Review of the Environmental Database Search

| Analyte/Group | Database |
|--|------------------------|
| 1,1-dichloroethane | CERCLIS-NPL |
| 1,1-dichloroethene | RCRIS-LQG |
| 1,2-dichlorobenzene | CERCLIS-NPL |
| 1,2-dichloroethane | CERCLIS-NPL |
| 1,4-dichlorobenzene | CERCLIS-NPL |
| acetone | CERCLIS-NPL |
| arsenic trioxide | RCRIS-LQG |
| arsenic | CERCLIS-NPL |
| barium | CERCLIS-NPL |
| cadmium | CERCLIS-NPL, RCRIS-SQG |
| carbon disulfide | CERCLIS-NPL |
| carbon tetrachloride | CERCLIS-NPL |
| chlorobenzene | CERCLIS-NPL |
| chloroform | CERCLIS-NPL |
| chromic acid | CHMIRS |
| chromium | CERCLIS-NPL |
| cis-1,2-dichloroethylene | CERCLIS-NPL |
| cobalt | CERCLIS-NPL |
| copper | CERCLIS-NPL |
| diesel fuel | HIST UST |
| diesel waste | HIST UST |
| di-n-butyl phthalate | CERCLIS-NPL |
| fluorene | CERCLIS-NPL |
| gasoline | HIST UST, LUST |
| hydrochloric acid | CHMIRS |
| lead | CERCLIS-NPL, RCRIS-SQG |
| mercury | CERCLIS-NPL, RCRIS-SQG |
| methyl ethyl ketone | CERCLIS-NPL |
| methylene chloride | CERCLIS-NPL |
| naphthalene | CERCLIS-NPL |
| nickel | CERCLIS-NPL |
| polychlorinated biphenyls (PCBs) | HAZNET |
| silver | RCRIS-LQG |
| spent cyanide | RCRIS-LQG |
| spent halogenated and non-halogenated solvents | RCRIS-LQG |
| styrene | CERCLIS-NPL |
| tetrachloroethene (PCE) | CERCLIS-NPL, CAL-SITES |
| toluene | CERCLIS-NPL |
| trichloroethene (TCE) | CERCLIS-NPL, CAL-SITES |
| vanadium | CERCLIS-NPL |
| waste oil | HIST UST |
| xylene | CERCLIS-NPL |
| zinc | CERCLIS-NPL |

CERCLIS-NPL = Comprehensive Environmental Response, Compensation and Liability Information System - National Priorities List

CHMIRS = California Hazardous Material Incident Report System

CW WDS = California Waste Discharge System

HAZNET = Hazardous Waste Manifest Database

HIST UST = Historical Underground Storage Tank Registered Database

LUST = Leaking Underground Storage Tank Database

RCRIS-LQG = Resource Conservation and Recovery Information System - Large Quantity Generator

UST = Underground Storage Tank Database

TABLE 2-7
Chemicals Used at JPL Based on
Previous Studies and Investigations Review

| Analyte/Group | Source |
|---|--------------|
| 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113) | OU-2 RI |
| 1,1-dichloroethene (1,1-DCE) | ESI, OU-2 RI |
| 1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin (OCDD) | OU-2 RI |
| 1,2-dichloroethane (1,2-DCA) | OU-2 RI |
| acetic acid | PA |
| acetone | PA, OU-2 RI |
| antimony | ESI, OU-2 RI |
| arochlor-1242 | OU-2 RI |
| arochlor-1254 | OU-2 RI |
| arochlor-1260 | OU-2 RI |
| arsenic | OU-2 RI |
| asbestos | PA |
| barium | ESI, OU-2 RI |
| batteries/battery acid | PA, ESI |
| benzene | PA |
| benzo(a)anthracene | OU-2 RI |
| benzo(a)pyrene | OU-2 RI |
| benzo(b)fluoranthene | OU-2 RI |
| benzo(g,h,i)perylene | OU-2 RI |
| beryllium | PA, OU-2 RI |
| bis(2-ethylhexyl)phthalate | ESI, OU-2 RI |
| bromodichloromethane | ESI, OU-2 RI |
| bromoform | ESI |
| butylbenzylphthalate | OU-2 RI |
| cadmium | OU-2 RI |
| carbon tetrachloride | ESI, OU-2 RI |
| chemical lab wastes | PA, ESI |
| chloroform | ESI, OU-2 RI |
| chromium (total) | ESI, OU-2 RI |
| chrysene | OU-2 RI |
| cobalt | ESI, OU-2 RI |
| cooling tower chemicals | ESI |
| copper | ESI, OU-2 RI |
| cyanide | OU-2 RI |
| dibromochloromethane | ESI |
| di-n-butylphthalate | OU-2 RI |
| fluoranthene | OU-2 RI |
| fluorescent lights | PA |
| flurotrichloromethane | OU-2 RI |
| freon | PA, ESI |
| gross alpha | OU-2 RI |
| gross beta | OU-2 RI |
| heavy metals | PA |
| hexavalent chromium | OU-2 RI |
| hydrochloric acid | PA |
| ideno(1,2,3-cd) pyrene | OU-2 RI |

TABLE 2-7
Chemicals Used at JPL Based on
Previous Studies and Investigations Review

| Analyte/Group | Source |
|------------------------------------|------------------|
| lead | PA, ESI, OU-2 RI |
| magnesium | PA |
| mercury | PA, ESI, OU-2 RI |
| methylene chloride | PA, ESI, OU-2 RI |
| mixed solvents | PA |
| molybdenum | ESI, OU-2 RI |
| nickel | ESI, OU-2 RI |
| nitrates | OU-2 RI |
| n-nitroso-dipropylamine | OU-2 RI |
| paints | PA |
| phenanthrene | OU-2 RI |
| polychlorinated biphenyls (PCBs) | PA |
| pyrene | OU-2 RI |
| selenium | OU-2 RI |
| silver | OU-2 RI |
| sodium hydroxide | PA |
| solid rocket fuel propellant | ESI |
| solvents | PA |
| strontium | ESI, OU-2 RI |
| sulfuric acid | PA, ESI |
| tetrachloroethene (PCE) | ESI, OU-2 RI |
| thallium | OU-2 RI |
| toluene | PA |
| total petroleum hydrocarbons (TPH) | ESI, OU-2 RI |
| tributyltin | OU-2 RI |
| trichloroethane | PA |
| trichloroethene (TCE) | ESI, OU-2 RI |
| trichlorotrifluoroethane | PA |
| vanadium | OU-2 RI |
| waste oil | PA |
| zinc | ESI, OU-2 RI |

PA = Preliminary Assessment Report

ESI = Extended Site Inspection Report

OU-2 RI = Remedial Investigation Report for Operable Unit 2:On-Site Soil

TABLE 2-8
Chemicals Used at JPL Based on
National Archives and Records Administration Review

| Analyte/Group | Source |
|--|---------------------|
| aniline | R&D |
| aluminum alloys | R&D |
| aluminum powder | R&D |
| ammonia isotopes N ¹⁴ and N ¹⁵ | R&D |
| ammonium perchlorate | R&D |
| ballastite | R&D |
| calcium permanganate | R&D |
| chlorine trifluoride | R&D |
| coolants | R&D |
| copper | R&D |
| corrosives | R&D |
| cryolite | R&D |
| ethylene diamine | R&D |
| fluoride | R&D |
| freon | R&D |
| fuming nitric acid | R&D |
| gasoline | R&D |
| graphite | R&D |
| helium | purchase order |
| hydrazine | purchase order, R&D |
| hydrazine diperchlorate | purchase order |
| hydrochloric acid | R&D |
| hydrogen peroxide | R&D |
| iron oxide | R&D |
| liquid nitrogen | purchase order, R&D |
| liquid oxygen | R&D |
| magnesium alloy | R&D |
| magnesium fluoride | R&D |
| metal alloys | R&D |
| molybdenum | R&D |
| monomethyl hydrazine (MMH) | purchase order, R&D |
| nitrofluoride | R&D |
| nitrogen gas | R&D |
| nitrogen tetroxide | R&D |
| nitromethane | R&D |
| photographic developers | R&D |
| polybutadiene acrylic acid acrylonitrile terpolymer binder | R&D |
| polyurethane | R&D |
| potassium perchlorate | R&D |
| propane | R&D |
| steel | R&D |
| T17E2 propellant | R&D |
| uns-di-methyl-hydrazine (UDMH) | purchase order |

R&D = research and development

TABLE 2-9
Summary of all Chemicals Used at or Generated by JPL

| Analyte/Group | Source |
|--|--------------------|
| 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113) | OU-2 RI |
| 1,1-dichloroethane (1,1-DCA) | EDSR |
| 1,1-dichloroethene (1,1-DCE) | EDSR, ESI, OU-2 RI |
| 1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin (OCDD) | OU-2 RI |
| 1,2-dichlorobenzene (1,2-DCB) | EDSR |
| 1,2-dichloroethane (1,2-DCA) | EDSR, OU-2 RI |
| 1,4-dichlorobenzene (1,4-DCB) | EDSR |
| acetic acid | PA |
| acetone | EDSR, PA, OU-2 RI |
| aniline | NARA |
| aluminum alloys | NARA |
| aluminum powder | NARA |
| ammonia isotopes N ¹⁴ and N ¹⁵ | NARA |
| ammonium perchlorate | NARA |
| antimony | ESI, OU-2 RI |
| arochlor-1242 | OU-2 RI |
| arochlor-1254 | OU-2 RI |
| arochlor-1260 | OU-2 RI |
| arsenic | EDSR, OU-2 RI |
| arsenic trioxide | EDSR |
| asbestos | PA |
| ballastite | NARA |
| barium | EDSR, ESI, OU-2 RI |
| batteries/battery acid | PA, ESI |
| benzene | PA |
| benzo(a)anthracene | OU-2 RI |
| benzo(a)pyrene | OU-2 RI |
| benzo(b)fluoranthene | OU-2 RI |
| benzo(g,h,i)perylene | OU-2 RI |
| beryllium | PA, OU-2 RI |
| bis(2-ethylhexyl)phthalate | ESI, OU-2 RI |
| bromodichloromethane | ESI, OU-2 RI |
| bromoform | ESI |
| butylbenzylphthalate | OU-2 RI |
| cadmium | EDSR, OU-2 RI |
| calcium permanganate | NARA |
| carbon disulfide | EDSR |
| carbon tetrachloride | EDSR, ESI, OU-2 RI |
| chemical lab wastes | PA, ESI |
| chlorine trifluoride | NARA |
| chlorobenzene | EDSR |
| chloroform | EDSR, ESI, OU-2 RI |
| chromic acid | EDSR |
| chromium (total) | EDSR, ESI, OU-2 RI |
| chrysene | OU-2 RI |
| cis-1,2-dichloroethylene | EDSR |
| cobalt | EDSR, ESI, OU-2 RI |

TABLE 2-9
Summary of all Chemicals Used at or Generated by JPL

| Analyte/Group | Source |
|----------------------------|--------------------------|
| coolants | NARA |
| cooling tower chemicals | ESI |
| copper | EDSR, ESI, OU-2 RI, NARA |
| corrosives | NARA |
| cryolite | NARA |
| cyanide | EDSR, OU-2 RI |
| dibromochloromethane | ESI |
| diesel fuel | EDSR |
| di-n-butylphthalate | EDSR, OU-2 RI |
| ethylene diamine | NARA |
| fluoranthene | OU-2 RI |
| fluorene | EDSR |
| fluorescent lights | PA |
| fluoride | NARA |
| flurotrichloromethane | OU-2 RI |
| freon | PA, ESI, NARA |
| fuming nitric acid | NARA |
| gasoline | EDSR, NARA |
| graphite | NARA |
| gross alpha | OU-2 RI |
| gross beta | OU-2 RI |
| heavy metals | PA |
| helium | NARA |
| hexavalent chromium | OU-2 RI |
| hydrazine | NARA |
| hydrazine diperchlorate | NARA |
| hydrochloric acid | PA, NARA, EDSR |
| hydrogen peroxide | NARA |
| ideno(1,2,3-cd) pyrene | OU-2 RI |
| iron oxide | NARA |
| lead | EDSR, PA, ESI, OU-2 RI |
| liquid nitrogen | NARA |
| liquid oxygen | NARA |
| magnesium | PA |
| magnesium alloy | NARA |
| magnesium fluoride | NARA |
| mercury | EDSR, PA, ESI, OU-2 RI |
| metal alloys | NARA |
| methyl ethyl ketone | EDSR |
| methylene chloride | EDSR, PA, ESI, OU-2 RI |
| mixed solvents | PA |
| molybdenum | ESI, OU-2 RI, NARA |
| monomethyl hydrazine (MMH) | NARA |
| naphthalene | EDSR |
| nickel | EDSR, ESI, OU-2 RI |
| nitrates | OU-2 RI |
| nitrofluoride | NARA |

TABLE 2-9
Summary of all Chemicals Used at or Generated by JPL

| Analyte/Group | Source |
|--|--------------------|
| nitrogen gas | NARA |
| nitrogen tetroxide | NARA |
| nitromethane | NARA |
| n-nitroso-dipropylamine | OU-2 RI |
| paints | PA |
| phenanthrene | OU-2 RI |
| photographic developers | NARA |
| polybutadiene acrylic acid acrylonitrile terpolymer binder | NARA |
| polychlorinated biphenyls (PCBs) | PA |
| polyurethane | NARA |
| potassium perchlorate | NARA |
| propane | NARA |
| pyrene | OU-2 RI |
| selenium | OU-2 RI |
| silver | EDSR, OU-2 RI |
| sodium hydroxide | PA |
| solid rocket fuel propellant | ESI |
| solvents | PA |
| steel | NARA |
| strontium | ESI, OU-2 RI |
| styrene | EDSR |
| sulfuric acid | PA, ESI |
| T17E2 propellant | NARA |
| tetrachloroethene (PCE) | EDSR, ESI, OU-2 RI |
| thallium | OU-2 RI |
| toluene | PA, EDSR |
| total petroleum hydrocarbons (TPH) | ESI, OU-2 RI |
| tributyltin | OU-2 RI |
| trichloroethane | PA |
| trichloroethene (TCE) | EDSR, ESI, OU-2 RI |
| trichlorotrifluoroethane | PA |
| uns-di-methyl-hydrazine (UDMH) | NARA |
| vanadium | EDSR, OU-2 RI |
| waste oil | PA |
| xylene | EDSR |
| zinc | EDSR, ESI, OU-2 RI |

EDSR = Environmental Database Search Review

ESI = Extended Site Inspection Report

NARA = National Archive and Records Administration Review

OU-2 RI = Remedial Investigation Report for Operable Unit 2:On-Site Soil

PA = Preliminary Assessment Report

TABLE 2-10 Potential Sources Identified in Databases

| Map ID Letter | Map ID Number | Facility Name | Address |
|---------------|-------------------|---|-------------------------------|
| A | Not Assigned | Arroyo Substation | 4800 Oak Grove Drive |
| | Not Assigned | Southern California Edison | 4800 Oak Grove Drive |
| | Not Assigned | Jet Propulsion Laboratory | 4800 Oak Grove Drive |
| B | 10, 11, and 12 | Pacific Bell | 4815 Oak Grove Avenue |
| | 13 | Los Angeles County Fire Camp 2 | 4815 Oak Grove Avenue |
| C | 15, 16, and 19 | Saint Francis High School | 200 Foothill Boulevard |
| D | 20 and 21 | Flintridge Preparatory School | 4543 Crown Avenue |
| E | 24, 25, 26 and 27 | Flintridge Riding Club | 4625 Oak Grove Drive |
| F | 33 | Millard Canyon Landfill | 3900 Canyon Crest Road |
| | 34 | Los Angeles County Road Department | 3900 Canyon Crest Road |
| G | 35 and 36 | Five Acres/Boys & Girls AIDS School | 760 West Mountain View Street |
| H | 41, 42, and 61 | Independent Mercedes | 440 Foothill Boulevard |
| | 44 | La Cañada Tire | 459 Foothill Boulevard |
| | 45 | Bow Tie Cleaners | 458 Foothill Boulevard |
| I | 46 | Crystal Cleaners | 446 Foothill Boulevard |
| | 48 | Los Gringos Locos, LLC | 464 West Foothill Boulevard |
| | 49 | Foothill Volkswagen | 475 Foothill Boulevard |
| J | 50 and 51 | La Cañada Wastewater Plant Reclamation Plant District 28 | 533 Meadow View Drive |
| K | 52 and 53 | Szkiba Auto (Former) | 3081 Lincoln Boulevard North |
| K | 54, 55, and 56 | ARCO Products #80900 | 3081 North Lincoln Avenue |
| K | 60 | Georges Drive-in Liquor & Deli | 3061 North Lincoln Avenue |
| K | 62 | UNOCAL Corp Service Station | 587 West Altadena Drive |
| | 63 | Ralphs Grocery Company | 501 Foothill Boulevard |
| L | 64 | Truemark Property Management | 502 West Foothill Boulevard |
| | 65, 66, and 67 | Palace Cleaners | 510 ½ Foothill Boulevard |
| M | 68, 70, and 71 | Lincoln Avenue Water Company | 564 West Harriet Street |
| M | 69 | South Coulter Water Treatment | 564 West Harriet Street |
| N | 73 and 74 | Ralphs Grocery Company #55 | 521 West Foothill Boulevard |

TABLE 2-10 Potential Sources Identified in Databases

| Map ID Letter | Map ID Number | Facility Name | Address |
|---------------|--------------------------------|--|---------------------------|
| O | 76, 78, 79, 80, 81, 82, and 84 | ARCO Products Company | 550 Foothill Boulevard |
| | 77 and 83 | Name Not Reported | 550 Foothill Boulevard |
| | 14 | USDA Forest Service, Oak Grove | Oak Grove Drive North |
| | 17 | Saint Bede Church | 215 Foothill Boulevard |
| | 18 | Oak Grove Work Center | Oak Grove Park |
| | Not Assigned | G. T. Equipment | 4911 Crown Avenue |
| | 22 | Pasadena Children's Training School | 2933 North El Nido |
| | 23 | Oak Grove Ranger Station | 4600 Oak Grove Drive |
| | 28 | Los Angeles County Public Works | 4001 Canyondell Drive |
| | 29 | Pasadena Unified School District | 725 West Altadena Drive |
| | 30 | Los Angeles County Fire Station #82 | 352 Foothill Boulevard |
| | 31 and 40 | Name Not Reported | 4463 Oak Grove Drive |
| | 32 | Goodyear Auto Service Center | 420 Foothill Boulevard |
| | 37 | Arnold B. Cotton | 582 Meadow Grove Place |
| | 38 | Frank McHugh | 665 West Altadena Drive |
| | 39 | United States Department of Agriculture - Forest/Oak Grove Station | 4550 Oak Grove Drive |
| | 43 | 1X Donald L. Sheppard | 400 Georgian |
| | 47 | Loma Alta Company Park | 3330 North Lincoln Avenue |
| | 57 | RITE Cleaners | 3053 North Lincoln |
| | 58 | Knight Way School | 405 West Knight Way |
| | 59 | Clifford Beyers | 636 Royce Street |
| | 72 | William Barber | 511 Houseman Street |
| | 75 | La Cañada High School | 4463 Oak Grove Drive |
| | 85 | Lincoln debris disposal area | 600 Loma Alta Drive |
| | 86 | Altadena Chevron | 907 E. Altadena Drive |
| | 87 | Thomas A. Edison Elementary School | 3126 N. Glenrose Avenue |
| | 88 | L.T. | 2963 N. Olive |
| | 89 | LA County Fire Station #12 | 2760 Lincoln Ave |
| | 90 | Pasadena USD | 527 Ventura Street |
| | 91 | Old Chevron Station | 2445 N. Lincoln Avenue |

TABLE 2-10 Potential Sources Identified in Databases

| Map ID Letter | Map ID Number | Facility Name | Address |
|---------------|---------------|---|--------------------------|
| | 92 | J. Lee Hartman | 2439-2445 Lincoln Avenue |
| | 92 | Alliance Automotive | 2445 N. Lincoln Avenue |
| | 93 | No name (private residence) 1X Rubio Canyon Land & Water | 292 N. Figueroa Drive |
| | 94 | Association | 263 W. Figueroa Street |
| | 95 | Paramount Cleaners | 2345 Lincoln Avenue |
| | 96 | Foothills Moving Center | 2320 Lincoln Avenue |
| | 96 | U Haul Foothill 713-042 | 2320 Lincoln Avenue |
| | 97 | Lita McDonald | 365 Crosby Street |
| | 98 | Poppy/Pansey Cleaners | 2271 N. Lincoln Ave |
| | 99 | Chuy's Tire Service | 2231 N. Lincoln Ave |
| | 99 | Esquire Cleaners LA County DPW Road Div | 2210 N. Lincoln Ave |
| | 100 | 521/Maintenance District #2 | 815 E Calaveras Street |
| | 101 | Jesus Mercado | 2209 El Sol |
| | 102 | Mallcraft Inc. | 2225 N. Windsor |
| | 103 | Community Development Commission | 383 Acacia Street |
| | 104 | No name | 7073 Woodbury Road |
| | 104 | Paul Roberts | 2209 N. El Sol |
| | 105 | Exxon USA/ARCO | 2171 N. Fair Oaks Avenue |
| | 105 | 1X Mobil Oil/Mobil Oil Corp | 15 W. Woodbury Road |
| | 106 | Mobil Oil Corp | 2172 N Arroyo Blvd |
| | 107 | Jackson Elementary | 593 W. Woodbury Road |
| | 108 | Green Brothers Inc. | 543 W. Woodbury Road |
| | 108 | OAO Corp/Tim Conway | 500 W. Woodbury Road |
| | 109 | ENCO Service Station/Exxon Co. | 620 W. Woodbury Road |
| | 110 | Pasadena USD | 740 W. Woodbury Road |
| | 110 | RLT Photography | 723 W. Woodbury Road |
| | 110 | Autosport Engines | 741 W. Woodbury Road |
| | 111 | Cosso & Campbell Associates | 711 W. Woodbury Road |
| | 112 | Pacific Lift Inc./Main Yard | 836 W. Woodbury Road |
| | 112 | Gordy's Garage | 843 W. Woodbury Road |
| | 113 | Transamerica Financial Service | 620 W. Woodbury Road |
| | 114 | NASA/JPL | 500 W. Woodbury Road |
| | 115 | Jerry D. Smith/California Highway Patrol | 2130 Windsor Avenue |

Table 2-11. Hazardous Generator Activity and Waste Type

| Name | Generator Type | Activity | Type of Wastes |
|------------------------------------|----------------|---|---|
| Bow Tie Cleaners | RCRIS - SQG | Dry Cleaners | Not Reported |
| Crystal Cleaners | RCRIS - SQG | Dry Cleaners | <ul style="list-style-type: none"> • Halogenated Solvents • Photochemicals/ Photoprocessing |
| Foothill Volkswagen | RCRIS - SQG | Auto and Truck Sales and Service | Not Reported |
| G. T. Equipment | RCRIS - SQG | Waste Transporter | Not Reported |
| Independent Mercedes | RCRIS - SQG | Auto and Truck Sales and Service | Not Reported |
| Pacific Bell | RCRIS - SQG | Telephone Equipment | Not Reported |
| RITE Cleaners | RCRIS - SQG | Dry Cleaners | Not Reported |
| JPL | RCRIS - LQG | Federal Government Research and Development | <ul style="list-style-type: none"> • Inorganic Solids • Organic Solids • Halogenated Solvents • Metals • Diesel and Gasoline Fuels |
| Thomas A. Edison Elementary School | RCRIS-SQG | School | <ul style="list-style-type: none"> • Other organic solids |
| Autosport Engines | RCRIS-SQG | Automotive | <ul style="list-style-type: none"> • Waste oil, mixed oil |
| Esquire Cleaners | RCRIS-SQG | Dry Cleaners | Not Reported |
| Paramount Cleaners | RCRIS-SQG | Dry Cleaners | Not Reported |
| 1X Mobil Oil/Mobil Oil Corp | RCRIS-SQG | Automotive | <ul style="list-style-type: none"> • unspecified oil containing wastes |
| Pasadena USD | RCRIS-SQG | School | <ul style="list-style-type: none"> • PCB-containing waste; |

Table 2-12. SWRCB LUST Site Summary and Status

| LUST Site | Address | Substance Released / Media Affected | MTBE ¹ Tested (yes/no) | Status |
|---------------------------------|------------------------------|---|-----------------------------------|---|
| ARCO #1684 | 550 West Foothill Boulevard | Gasoline released into soil and groundwater in 1991 | Detected in groundwater in 1995 | Preliminary Assessment (PA) conducted in 1989. Pollution characterization completed in 1992. Case closed in 1996. |
| Flintridge Riding Club | 4625 Oak Grove Drive | Unknown substance released into soil | Not required | Case closed in 1990. |
| JPL | 4800 Oak Grove | Gasoline released into soil in 1990 | No | Tank closed in 1995. |
| Oak Grove Ranger Station | 4600 Oak Grove Drive | Gasoline released into soil in 1990 | No | Tank closed, but date of closure unknown. |
| Pacific Bell | 4815 Oak Grove Avenue | Diesel fuel released into soil in 1990 | Not required | Case closed in 1991. |
| Szkiba Auto (Former) | 3081 Lincoln Boulevard North | Gasoline released into soil in 1990 | No | Case closed in 1996. |
| LA County Fire Station #12 | 2760 Lincoln Avenue | Gasoline released into soil in 2001 | No | Not reported |
| Transamerica Financial Services | 620 W. Woodbury Road | Unknown release to soil in 1996. Based on HAZNET search this facility stored waste oil and mixed oil. | Not required to be tested | Case closed 1996; no reports of soil removal. |
| USDA Forest Service | North Oak Grove Drive | Gasoline released into soil in 1990 | No | Tank closed, but the date of closure and status of the Pollution Characterization unknown. |

Note:

¹ MTBE - methyl tertiary-butyl ether

TABLE 2-13

Summary of Chemicals Identified for the Other Potential Sources from Review of the Environmental Database Search

| Facility | Address | Activity/Source | Chemicals Identified | Database |
|--------------------------------------|------------------------|------------------------|--|-----------------|
| ALBERTO RODRIGUEZ | 550 W Foothill Blvd | UST/Automotive | Waste oil | HIST UST |
| ARCO #1684 | 550 W Foothill Blvd | UST/Automotive | Gasoline, methyl tertiary butyl ether | LUST |
| ARCO #1684 | 550 W Foothill Blvd | UST/Automotive | Gasoline, organic liquids with alkaline solution with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc); aqueous solution with less than 10% total organic | LUST, HAZNET |
| ARCO PRODUCTS #01684 | 550 W Foothill Blvd | UST/Automotive | Unknown | HMS |
| ARCO PRODUCTS #01684 | 550 W Foothill Blvd | UST/Automotive | Unknown | UST |
| ARCO PRODUCTS COMPANY | 550 W Foothill Blvd | UST/Automotive | Aqueous solution with less than 10% total organic residues | HAZNET |
| LA CANADA ARCO | 550 W Foothill Blvd | UST/Automotive | Unknown | HMS |
| NO NAME REPORTED | 550 W Foothill Blvd | UST/Automotive | Gasoline | CHMIRS |
| ARNOLD B COTTON | 582 Meadow Grove Pl | Unknown | Unknown | HMS |
| BOW TIE CLEANERS | 458 Foothill Blvd | Dry Cleaners | PCE, liquids w/ halogenated organic compounds > 1000 mg/L; halogenated solvents (chloroform, methyl chloride, PCE, etc) | CA SLIC, HAZNET |
| CLIFFORD BEYERS | 636 Royce St | Unknown | Laboratory waste chemicals | HAZNET |
| CRYSTAL CLEANERS | 446 Foothill Blvd | Dry Cleaners | Solids or sludges with halogenated organic compounds > 1000 mg/kg; aqueous solutions with < 10% total organic residues; halogenated solvents (chloroform, methyl chloride, PCE, etc); photochemicals/photprocessing wastes | HAZNET |
| DONALD L SHEPPARD | 400 Georgian | Unknown | Asbestos | HAZNET |
| FIVE ACRES/BOYS & GIRLS AIDS SOCIETY | 760 W Mountain View St | Education | Asbestos | HAZNET |

TABLE 2-13

Summary of Chemicals Identified for the Other Potential Sources from Review of the Environmental Database Search

| Facility | Address | Activity/Source | Chemicals Identified | Database |
|--------------------------------------|-----------------------|-----------------------|---|------------------|
| FLINTRIDGE PREPARATORY SCHOOL | 4543 Crown Ave | Education | Asbestos | HAZNET |
| FLINTRIDGE RIDING CLUB | 4625 Oak Grove Dr | UST | Regular fuel | LUST, UST HIST |
| FOOTHILL VW | 475 Foothill Blvd | UST, Automotive | Waste oil, unspecified aqueous solution and unspecified organic liquid mixture | HAZNET, HIST UST |
| FRANK MCHUGH | 665 W Altadena Dr | Unknown | Other organic solids | HAZNET |
| GEORGES DRIVE-IN LIQ & DE | 3061 N Lincoln Ave | Retail | Unknown | HMS |
| GOODYEAR AUTO SERVICE CENTER | 420 Foothill Blvd | Automotive | Unspecified organic liquid mixtures, oil/water separation sludge, unspecified oil containing wastes | HAZNET |
| G T EQUIPMENT | 4911 Crown Ave | Waste Transporter | Unknown | RCRIS-SQG |
| INDEPENDENT MERCEDES | 440 Foothill Blvd | Automotive | Other organic solids | RCRIS-SQG |
| KNIGHT WAY SCHOOL | 405 W Knight Way | Education | Unknown | HMS |
| LA CANADA HIGH SCHOOL | 4463 Oak Grove Dr | Laboratory/Education | Formaldehyde; asbestos | CHMIRS, HAZNET |
| LA CANADA TIRE | 459 Foothill Blvd | Automotive | Unspecified aqueous solutions with 10% or more total organic residues | HAZNET |
| LA CANADA WWRP, NON-NPDES | 533 Meadow View Dr | Wastewater Treatment | chloride, inorganic salts, heavy metals | WDS |
| CSDLAC RECLAMATION PLT DIST 28 | 533 Meadow View Dr | Wastewater Treatment | Unknown | HMS |
| LINCOLN AVENUE WATER COMPANY | 564 W Harriet St | UST | Regular fuel, diesel fuel; asbestos | HIST UST, HAZNET |
| SOUTH COULTER WATER TREATMENT | 564 W Harriet St | Wastewater Treatment | chloride, inorganic salts, heavy metals | WDS |
| LOMA ALTA CO PARK | 3330 N Lincoln Ave | Unknown | Unknown | HMS |
| LOS ANGELES COUNTY FIRE STATION #82 | 352 Foothill Blvd | UST | Unleaded fuel, diesel fuel | HIST UST |
| LOS ANGELES COUNTY ROAD DEPARTMENT | 3900 Canyon Crest Rd | Waste Management | Unknown | WMUDS |
| MILLARD CANYON DUMP | 3900 Canyon Crest Rd | Landfill - Closed | Solid waste | SWF/LF |
| LOS GRINGOS LOCOS, LLC | 464 W Foothill Blvd | Unknown | Unknown | HMS |
| OAK GROVE RANGER STATION | 4600 Oak Grove Dr | UST/Ranger Station | Gasoline | LUST |
| OAK GROVE WORK CTR | Oak Grove Park | UST | Unleaded fuel, diesel fuel | HIST UST |
| PACIFIC BELL | 4815 Oak Grove Ave | UST/Telephone Service | Diesel | LUST |
| PALACE CLEANERS | 510 1/2 Foothill Blvd | Dry Cleaning | Halogenated solvents (chloroform, methyl chloride, PCE, etc.) | HAZNET |
| PASADENA CHILDREN'S TRAINING SOCIETY | 2933 N El Nido | Education | Asbestos | HAZNET |
| PASADENA USD | 725 W Altadena Dr | Unknown | Asbestos | HAZNET |
| RALPHS GROCERY CO #55 | 521 W Foothill Blvd | Grocery Store | Unspecified oil-containing waste | HAZNET |

TABLE 2-13

Summary of Chemicals Identified for the Other Potential Sources from Review of the Environmental Database Search

| Facility | Address | Activity/Source | Chemicals Identified | Database |
|--|--------------------------|------------------------|---|----------------------------|
| RITE CLEANERS | 3053 N Lincoln | Dry Cleaners | Halogenated solvents (chloroform, methyl chloride, PCE, etc); liquids and solids/sludges with halogenated organic compounds > 1000 mg/L and mg/kg | HAZNET |
| SOUTHERN CALIFORNIA EDISON-ARROYO SUBSTATION | 4800 N Oak Grove Dr | Substation | Polychlorinated biphenyls (PCBs) | HAZNET |
| ST BEDE CHURCH | 215 Foothill Blvd | Religious | Asbestos | HAZNET |
| ST FRANCIS HIGH SCHOOL | 200 Foothill Blvd | Laboratory/Education | Other organic solids; asbestos | HAZNET |
| SZKIBA AUTO (FORMER) | 3081 N Lincoln Blvd | UST/Automotive | Gasoline | LUST |
| GEORGE SZKIBA | 3081 N Lincoln Blvd | Automotive | Other organic solids | HAZNET |
| ARCO PRODUCTS #80900 | 3081 N Lincoln Blvd | Automotive | Unknown | HMS |
| ALTADENA ARCO SERVICE | 3081 N Lincoln Blvd | Automotive | Unknown | HMS |
| TRUEMARK PROPERTY MANAGEMENT | 502 W Foothill Blvd | Unknown | Unknown | HMS |
| UNOCAL CORP SS | 587 W Altadena Dr | Unknown | Unknown | HMS |
| USDA FOREST SERVICE, OAK GROVE | N Oak Grove Dr | UST/Forest Service | Gasoline | LUST |
| WILLIAM P BARBER | 511 Houseman St | Unknown | Asbestos | HAZNET |
| LINCOLN DEBRIS DISPOSAL AREA | 600 Loma Alta Drive | SWF/LF | Unknown | WMUDS/SWAT |
| ALTADENA CHEVRON | 907 E. Altadena Drive | gas station | Unknown | Hist UST; UST |
| THOMAS A EDISON ELEMENTARY SCHOOL | 3126 N. Glenrose Avenue | school | other organic solids, asbestos-containing waste, | RCRIS-SQG, FINDS, HAZNET |
| L.T. | 2963 N. Olive | unreported | asbestos waste that was disposed of in land fill | HAZNET |
| LA COUNTY FIRE STATION #12 | 2760 Lincoln Ave | fire station | gasoline | Hist UST, LUST |
| PASADENA USD | 527 Ventura Street | school | asbestos waste that was disposed of in land fill | HAZNET |
| OLD CHEVRON STATION | 2445 N. Lincoln Avenue | automotive | Unknown | HMS |
| J. LEE HARTMAN | 2439-2445 Lincoln Avenue | automotive | tank bottom wastes which is disposed of via recycler | HAZNET |
| ALLIANCE AUTOMOTIVE | 2445 N. Lincoln Avenue | automotive | waste oil and mixed oil | HAZNET |
| NO NAME | 292 N. Figueroa Drive | private residence | muriatic acid | CHMIRS |
| 1X RUBIO CANYON LAND & WATER ASSOCIATION | 263 W. Figueroa Street | Unknown | aqueous solution with less than 10% organic residues | HAZNET |
| PARAMOUNT CLEANERS | 2345 Lincoln Avenue | dry cleaner | Unknown | RCRIS-SQG, FINDS, CLEANERS |
| FOOTHILLS MOVING CENTER | 2320 Lincoln Avenue | retail | 2 tanks regular and unleaded product | Hist UST |

TABLE 2-13

Summary of Chemicals Identified for the Other Potential Sources from Review of the Environmental Database Search

| Facility | Address | Activity/Source | Chemicals Identified | Database |
|---|--------------------------|--------------------------|---|------------------------------------|
| U HAUL FOOTHILL 713-042 | 2320 Lincoln Avenue | retail | tank bottom wastes which is disposed of via recycler - aqueous solution with less than 10% total organic residues | HAZNET, HMS |
| LITA MCDONALD | 365 Crosby Street | private residence | unreported | HMS |
| POPPY/PANSEY CLEANERS | 2271 N. Lincoln Ave | Dry Cleaner | halogenated solvents (chloroform, methyl chloride) | HAZNET, CLEANERS |
| CHUY'S TIRE SERVICE | 2231 N. Lincoln Ave | Unknown | Unknown | HMS |
| ESQUIRE CLEANERS | 2210 N. Lincoln Ave | Dry Cleaner | Unknown | RCRIS-SQG, FINDS, CLEANERS |
| LA COUNTY DPW ROAD DIV 521/MAINTENANCE DISTRICT #2 | 815 E Calaveras Street | City maintenance dept. | gasoline, diesel components | Hist UST, HMS |
| JESUS MERCADO | 2209 El Sol | Unknown | Unknown | HMS |
| MALLCRAFT INC. | 2225 N. Windsor | Unknown | diesel and unknown | Hist UST, RCRIS-SQG, FINDS, HMS |
| COMMUNITY DEVELOPMENT COMMISSION | 383 Acacia Street | Unknown | asbestos waste that was disposed of in land fill | HAZNET |
| NO NAME | 7073 Woodbury Road | Unknown | printing press cleaner-solvent | CHMIRS |
| PAUL ROBERTS | 2209 N. El Sol | above ground storage tan | Unknown | CA FID UST |
| EXXON USA/ARCO | 2171 N. Fair Oaks Avenue | Unknown | Unknown | HMS, CA FID UST |
| 1X MOBIL OIL/MOBIL OIL CORP | 15 W. Woodbury Road | Unknown | aqueous solution with less than 10% organic residues; unspecified oil-containing wastes | HAZNET, UST, RCRIS-SQG, FINDS, HMS |
| MOBIL OIL CORP | 2172 N Arroyo Blvd | Unknown | Unknown | HMS |
| JACKSON ELEMENTARY | 593 W. Woodbury Road | Unknown | asbestos waste that was disposed of in land fill | HAZNET |
| GREEN BROTHERS INC. | 543 W. Woodbury Road | Unknown | diesel, regular gasoline | HMS, UST, Hist UST |
| OAO CORP/TIM CONWAY | 500 W. Woodbury Road | Unknown | Unknown | HMS |
| ENCO SERVICE STATION/EXXON CO. | 620 W. Woodbury Road | Unknown | Unknown | HMS |
| PASADENA USD | 740 W. Woodbury Road | Unknown | asbestos waste that was disposed of in land fill, other inorganic materials, PCB-containing waste | RCRIS-SQG, FINDS, HAZNET |
| RLT PHOTOGRAPHY | 723 W. Woodbury Road | Unknown | Unknown | HMS |
| AUTOSPORT ENGINES | 741 W. Woodbury Road | Unknown | other organic solids, waste oil, mixed oil | RCRIS-SQG, FINDS, HAZNET |
| COSSO & CAMPBELL ASSOCIATES | 711 W. Woodbury Road | Unknown | Unknown | HMS |
| PACIFIC LIFT INC./MAIN YARD | 836 W. Woodbury Road | Unknown | waste oil and mixed oil, diesel, unleaded product | HAZNET, Hist UST |

TABLE 2-13**Summary of Chemicals Identified for the Other Potential Sources from Review of the Environmental Database Search**

| Facility | Address | Activity/Source | Chemicals Identified | Database |
|---|----------------------|------------------------|--|-----------------------|
| GORDY'S GARAGE | 843 W. Woodbury Road | Unknown | aqueous solution with less than 10% total organic residues | HAZNET |
| TRANSAMERICA FINANCIAL SERVICE | 620 W. Woodbury Road | Unknown | unknown | HAZNET, LUST, Cortese |
| NASA/JPL | 500 W. Woodbury Road | Unknown | photochemical processing waste, lab waste chemicals | HAZNET |
| JERRY D. SMITH/CALIFORNIAL HIGHWAY PATROL | 2130 Windsor Avenue | Unknown | Unknown | HMS |

CA SLIC = Spills, Leaks, Investigations, and Cleanup Sites Region from the California Regional Water Quality Control Board Database

CHMIRS = California Hazardous Material Incident Report System

HAZNET = Hazardous Waste Manifest Database

HIST UST = Historical Underground Storage Tank Registered Database

HMS = Los Angeles County Industrial Waste and Underground Storage Tank Sites Database

LUST = Leaking Underground Storage Tank Database

RCRIS-SQG = Resource Conservation and Recovery Information System - Small Quantity Generator

SWF/LF = Solid Waste Facilities/Landfill Sites Records Database

UST =Underground Storage Tank Database

WDS = Waste Discharge System

WMUDS = Waste Management Unit Database System

TABLE 2-14
Summary of Chemicals from Known and Potential Sources

| Analyte/Group | Analytes | Rationale for Selecting Chemical | Facility/Source |
|--|--|---|---|
| 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113) | 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113) | chemical listed | JPL |
| 1,1-dichloroethane (1,1-DCA) | 1,1-dichloroethane (1,1-DCA) | chemical listed | JPL |
| 1,1-dichloroethene (1,1-DCE) | 1,1-dichloroethene (1,1-DCE) | chemical listed | JPL |
| 1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin (OCDD) | 1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin (OCDD) | chemical listed | JPL |
| 1,2-dichlorobenzene (1,2-DCB) | 1,2-dichlorobenzene (1,2-DCB) | chemical listed | JPL |
| 1,2-dichloroethane (1,2-DCA) | 1,2-dichloroethane (1,2-DCA) | chemical listed | JPL |
| 1,4-dichlorobenzene (1,4-DCB) | 1,4-dichlorobenzene (1,4-DCB) | chemical listed | JPL |
| acetic acid | acetic acid | chemical listed | JPL |
| acetone | acetone | chemical listed | JPL |
| aniline | aniline | chemical listed | JPL |
| aluminum alloys | aluminum | aluminum is a component of aluminum alloys | JPL |
| aluminum powder | aluminum | aluminum is a component of aluminum powder | JPL |
| ammonia isotopes N ¹⁴ and N ¹⁵ | ammonia isotopes N ¹⁴ and N ¹⁵ | chemical listed | JPL |
| ammonium perchlorate | ammonium and perchlorate | chemical would dissociate to ammonium and perchlorate | JPL |
| antimony | antimony | chemical listed | JPL |
| aqueous solution with less than 10% total organic residues | none | specific chemicals in aqueous solution are not specified | ARCO PRODUCTS COMPANY, RUBIO CANYON LAND & WATER ASSOCIATION, MOBIL OIL/MOBIL OIL CORP, GORDY'S GARAGE, U HAUL FOOTHILL, LA CANADA TIRE |
| arochlor-1242 | arochlor-1242 | chemical listed | JPL |
| arochlor-1254 | arochlor-1254 | chemical listed | JPL |
| arochlor-1260 | arochlor-1260 | chemical listed | JPL |
| arsenic | arsenic | chemical listed | JPL |
| arsenic trioxide | arsenic trioxide | chemical listed | JPL |
| asbestos | none | asbestos would be filtered out in aquifer | DONALD L SHEPPARD, FIVE ACRES/BOYS & GIRLS SOCIETY, FLINTRIDGE PREPARATORY SCHOOL, JPL, PASADENA CHILDREN'S TRAINING SOCIETY, PASADENA USD, ST BEDE CHURCH, WILLIAM P BARBER, THOMAS A. EDISON ELEMENTARY, JACKSON ELEMENTARY, COMMUNITY DEVELOPMENT COMMISSION, LT |
| ballastite | ballastite | chemical listed | JPL |
| barium | barium | chemical listed | JPL |
| batteries/battery acid | sulfuric acid | synonym for battery acid | JPL |
| benzene | benzene | chemical listed | JPL |
| benzo(a)anthracene | benzo(a)anthracene | chemical listed | JPL |
| benzo(a)pyrene | benzo(a)pyrene | chemical listed | JPL |
| benzo(b)fluoranthene | benzo(b)fluoranthene | chemical listed | JPL |
| benzo(g,h,i)perylene | benzo(g,h,i)perylene | chemical listed | JPL |
| beryllium | beryllium | chemical listed | JPL |
| bis(2-ethylhexyl)phthalate | bis(2-ethylhexyl)phthalate | chemical listed | JPL |
| bromodichloromethane | bromodichloromethane | chemical listed | JPL |
| bromoform | bromoform | chemical listed | JPL |
| butylbenzylphthalate | butylbenzylphthalate | chemical listed | JPL |
| cadmium | cadmium | chemical listed | JPL |
| calcium permanganate | calcium permanganate | chemical listed | JPL |
| carbon disulfide | carbon disulfide | chemical listed | JPL |
| carbon tetrachloride | carbon tetrachloride | chemical listed | JPL |
| chemical lab wastes | none | specific chemicals in chemical lab wastes are not specified | JPL |

TABLE 2-14
Summary of Chemicals from Known and Potential Sources

| Analyte/Group | Analytes | Rationale for Selecting Chemical | Facility/Source |
|---|---|--|-------------------------------|
| chloride, inorganic salts, heavy metals | none | chloride is naturally occurring; specific chemicals for inorganic salts and heavy metals are not specified | LA CANADA WWRP, NON-NPDES |
| chloride, inorganic salts, heavy metals | none | chloride is naturally occurring; specific chemicals for inorganic salts and heavy metals are not specified | SOUTH COULTER WATER TREATMENT |
| chlorine trifluoride | chlorine trifluoride | chemical listed | JPL |
| chlorobenzene | chlorobenzene | chemical listed | JPL |
| chloroform | chloroform | chemical listed | JPL |
| chromic acid | chromic acid | chemical listed | JPL |
| chromium (total) | chromium (total) | chemical listed | JPL |
| chrysene | chrysene | chemical listed | JPL |
| cis-1,2-dichloroethylene | cis-1,2-dichloroethylene | chemical listed | JPL |
| cobalt | cobalt | chemical listed | JPL |
| coolants | none | specific chemicals in coolants are not specified | JPL |
| cooling tower chemicals | none | specific chemicals in cooling tower chemicals are not specified | JPL |
| copper | copper | chemical listed | JPL |
| corrosives | none | specific chemicals in corrosives are not specified | JPL |
| cryolite | sodium aluminum fluoride | synonym for cryolite | JPL |
| cyanide | cyanide | chemical listed | JPL |
| dibromochloromethane | dibromochloromethane | chemical listed | JPL |
| diesel fuel | hydrocarbons in the range from C ₁₀ through C ₂₂ | chemicals in gasoline | PACIFIC BELL, JPL |
| di-n-butylphthalate | di-n-butylphthalate | chemical listed | JPL |
| ethylene diamine | ethylene diamine | chemical listed | JPL |
| fluoranthene | fluoranthene | chemical listed | JPL |
| fluorene | fluorene | chemical listed | JPL |
| fluorescent lights | mercury and polychlorinated biphenyls (PCBs) | mercury and polychlorinated biphenyls (PCBs) are components of fluorescent lights | JPL |
| fluoride | fluoride | chemical listed | JPL |
| flurotrichloromethane | flurotrichloromethane | chemical listed | JPL |
| formaldehyde; asbestos | formaldehyde | chemical listed; asbestos would be filtered out in aquifer | LA CANADA HIGH SCHOOL |
| freon | chlorodifluoromethane, dichlorodifluoromethane, trichlorofluoroethane, 1,1,2-trichloro-1,2,2-trifluoroethane | synonym for freon | JPL |
| fuming nitric acid | fuming nitric acid | chemical listed | JPL |
| gasoline | hydrocarbons in the range of C ₄ through C ₁₂ , benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline | JPL |
| gasoline | hydrocarbons in the range of C ₄ through C ₁₂ , benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline | NO NAME REPORTED |
| gasoline | hydrocarbons in the range of C ₄ through C ₁₂ , benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline | OAK GROVE RANGER STATION |
| gasoline | hydrocarbons in the range of C ₄ through C ₁₂ , benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline | SZKIBA AUTO (FORMER) |

TABLE 2-14
Summary of Chemicals from Known and Potential Sources

| Analyte/Group | Analytes | Rationale for Selecting Chemical | Facility/Source |
|---|--|--|--|
| gasoline | hydrocarbons in the range of C ₄ through C ₁₂ , benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline | USDA FOREST SERVICE, OAK GROVE |
| gasoline, methyl tertiary butyl ether (MTBE) | hydrocarbons in the range of C4 through C12, benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), t-amyl methyl ether (TAME), t-butyl alcohol (TBA) | chemicals in gasoline; MTBE byproducts | ARCO #1684 |
| gasoline, organic liquids with alkaline solution with metals (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc); aqueous solution with less than 10% total organic residues | benzene, toluene, ethylbenzene, xylenes, antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc | chemicals listed; specific chemicals in aqueous solution are not specified | ARCO #1684 |
| gross alpha | alpha emitting particles | chemical listed | JPL |
| gross beta | beta emitting particles | chemical listed | JPL |
| halogenated solvents (chloroform, methyl chloride, PCE); liquids and solids/sludges with halogenated organic compounds > 1000 mg/L and mg/kg | chloroform, methyl chloride, tetrachloroethene (PCE) | chemicals listed; or specific chemicals in liquids and solids/sludges with halogenated organic compounds are not specified | RITE CLEANERS, PALACE CLEANERS, POPPY/PANSEY CLEANERS, BOWTIE CLEANERS, CRYSTAL CLEANERS, ESQUIRE CLEANERS |
| heavy metals | cadmium, lead, mercury | most common heavy metals | JPL |
| helium | none | helium is not a threat to groundwater | JPL |
| hexavalent chromium | hexavalent chromium | chemical listed | JPL |
| hydrazine | hydrazine | chemical listed | JPL |
| hydrazine diperchlorate | hydrazine diperchlorate | chemical listed | JPL |
| hydrochloric acid | hydrochloric acid | chemical listed | JPL, PRIVATE RESIDENCE AT 292 N. FIGUEROA STREET |
| hydrogen peroxide | none | hydrogen peroxide would react to form water | JPL |
| ideno(1,2,3-cd) pyrene | ideno(1,2,3-cd) pyrene | chemical listed | JPL |
| iron oxide | iron oxide | chemical listed | JPL |
| laboratory waste chemicals | none | specific chemicals in laboratory waste chemicals not specified | CLIFFORD BEYERS, JPL |
| lead | lead | chemical listed | JPL |
| liquid nitrogen | liquid nitrogen | liquid nitrogen is not a threat to groundwater | JPL |
| liquid oxygen | liquid oxygen | liquid oxygen is not a threat to groundwater | JPL |
| magnesium | magnesium | chemical listed | JPL |
| magnesium alloy | magnesium | magnesium is a component of magnesium alloy | JPL |
| magnesium fluoride | magnesium, fluoride | chemical would dissociate to magnesium and fluoride | JPL |
| mercury | mercury | chemical listed | JPL |
| metal alloys | none | specific chemicals in metal alloys are not specified | JPL |
| methyl ethyl ketone | methyl ethyl ketone | chemical listed | JPL |
| methylene chloride | methylene chloride | chemical listed | JPL |
| mixed solvents | none | specific chemicals in mixed solvents are not specified | JPL |
| molybdenum | molybdenum | chemical listed | JPL |
| monomethyl hydrazine (MMH) | monomethyl hydrazine (MMH) | chemical listed | JPL |
| naphthalene | naphthalene | chemical listed | JPL |
| nickel | nickel | chemical listed | JPL |

TABLE 2-14
Summary of Chemicals from Known and Potential Sources

| Analyte/Group | Analytes | Rationale for Selecting Chemical | Facility/Source |
|---|--|--|--|
| nitrates | nitrates | chemicals listed | JPL |
| nitrofluoride | nitrofluoride | chemical listed | JPL |
| nitrogen gas | none | nitrogen gas is not a threat to groundwater | JPL |
| nitrogen tetroxide | nitrogen tetroxide | chemical listed | JPL |
| nitromethane | nitromethane | chemical listed | JPL |
| n-nitroso-dipropylamine | n-nitroso-dipropylamine | chemical listed | JPL |
| other organic solids | none | specific chemicals in other organic solids are not specified | FRANK MCHUGH, GEORGE SZKIBA, INDEPENDENT MERCEDES, THOMAS A. EDISON ELEMENTARY, AUTOSPORT ENGINES |
| other organic solids; asbestos | none | specific chemicals in other organic solids are not specified; asbestos is not a threat to groundwater | ST FRANCIS HIGH SCHOOL |
| paints | benzene, toluene, methyl ethyl ketone, acetone, xylene, cresols, mercury, lead, chromium | common paint chemicals ² | JPL |
| phenanthrene | phenanthrene | chemical listed | JPL |
| photographic developers | silver, chromium, zinc, selenium, ammonium, hydroquinone, xylene, 1,1,1-trichloroethane, cyanide | common photoprocessing chemicals ¹ | JPL, RLT PHOTOGRAPHY |
| polybutadiene acrylic acid acrylonitrile terpolymer binder | polybutadiene acrylic acid acrylonitrile terpolymer binder | chemical listed | JPL |
| Polychlorinated biphenyls (PCBs) | polychlorinated biphenyls (PCBs) | chemicals listed | JPL, SOUTHERN CALIFORNIA EDISON-ARROYO SUBSTATION, PASADENA USD |
| polyurethane | polyurethane | chemical listed | JPL |
| potassium perchlorate | potassium, perchlorate | chemical would dissociate to potassium and perchlorate | JPL |
| propane | propane | chemical listed | JPL |
| pyrene | pyrene | chemical listed | JPL |
| regular gasoline fuel | hydrocarbons in the range of C ₄ through C ₁₂ , benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline | FLINTRIDGE RIDING CLUB, LA COUNTY FIRE STATION #12, LA COUNTY DPW ROAD DIV 512/MAINTENANCE DISTRICT #2, GREEN BROTHERS INC, FOOTHILLS MOVING CENTER, ALTADENA CHEVRON, OLD CHEVRON STATION |
| regular gasoline fuel, diesel fuel; asbestos | hydrocarbons in the range of C ₄ through C ₁₂ for regular gasoline and hydrocarbons in the range from C ₁₀ through C ₂₂ for diesel fuel, benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline; asbestos would be filtered out in aquifer | LINCOLN AVENUE WATER COMPANY, PACIFIC LIFT INC/MAIN YARD, GREEN BROTHERS INC., MALLCRAFT INC, EXXON ARCO, ENCO SERVICE STATION/EXXON CO. |
| selenium | selenium | chemical listed | JPL |
| silver | silver | chemical listed | JPL |
| sodium hydroxide | sodium hydroxide | chemical listed | JPL |
| solid rocket fuel propellant | ammonium perchlorate, potassium perchlorate, polybutadiene, iron oxide, aluminum | common components of solid rocket fuel propellant | JPL |
| solid waste | none | no chemicals specified | MILLARD CANYON DUMP, LINCOLN DEBRIS DISPOSAL AREA |
| solids or sludges with halogenated organic compounds > 1000 mg/kg; aqueous solutions with < 10% total organic residues; halogenated solvents (chloroform, methyl chloride, PCE, etc); photochemicals/photoprocessing wastes | Silver, chromium, zinc, selenium, ammonium, hydroquinone, xylene, 1,1,1-trichloroethane, cyanide | chemicals listed; common photoprocessing chemicals ¹ ; specific chemicals in aqueous solution not specified | NO NAME AT 7073 WOODBURY ROAD |
| solvents | none | specific chemicals in solvents are not specified | JPL |
| steel | steel | chemical listed | JPL |

TABLE 2-14
Summary of Chemicals from Known and Potential Sources

| Analyte/Group | Analytes | Rationale for Selecting Chemical | Facility/Source |
|------------------------------------|---|--|---|
| strontium | strontium | chemical listed | JPL |
| styrene | styrene | chemical listed | JPL |
| sulfuric acid | sulfuric acid | chemical listed | JPL |
| T17E2 propellant | none | specific chemicals of T17E2 propellant are not specified | JPL |
| tetrachloroethene (PCE) | tetrachloroethene (PCE) | chemical listed | JPL |
| thallium | thallium | chemical listed | JPL |
| toluene | toluene | chemical listed | JPL |
| total petroleum hydrocarbons (TPH) | total petroleum hydrocarbons (TPH) | chemical listed | JPL |
| tributyltin | tributyltin | chemical listed | JPL |
| trichloroethane | trichloroethane | chemical listed | JPL |
| trichloroethylene (TCE) | trichloroethylene (TCE) | chemical listed | JPL |
| trichlorotrifluoroethane | trichlorotrifluoroethane | chemical listed | JPL |
| unknown | none | no chemicals specified | ALTADENA ARCO SERVICE |
| unknown | none | no chemicals specified | ARCO PRODUCTS #01684 |
| unknown | none | no chemicals specified | ARCO PRODUCTS #01684 |
| unknown | none | no chemicals specified | ARCO PRODUCTS #80900 |
| unknown | none | no chemicals specified | ARNOLD B COTTON |
| unknown | none | no chemicals specified | CSDLAC RECLAMATION PLT DIST 28 |
| unknown | none | no chemicals specified | G T EQUIPMENT |
| unknown | none | no chemicals specified | GEORGES DRIVE-IN LIQ & DE |
| unknown | none | no chemicals specified | KNIGHT WAY SCHOOL |
| unknown | none | no chemicals specified | LA CANADA ARCO |
| unknown | none | no chemicals specified | LOMA ALTA CO PARK |
| unknown | none | no chemicals specified | LOS ANGELES COUNTY ROAD DEPARTMENT |
| unknown | none | no chemicals specified | LOS GRINGOS LOCOS, LLC |
| unknown | none | no chemicals specified | TRUEMARK PROPERTY MANAGEMENT |
| unknown | none | no chemicals specified | UNOCAL CORP SS |
| unknown | none | no chemicals specified | LITA MCDONALD |
| unknown | none | no chemicals specified | PAUL ROBERTS |
| unknown | none | no chemicals specified | TRANSAMERICA FINANCIAL SERVICES |
| unknown | none | no chemicals specified | COSO & CAMPBELL ASSOCIATES |
| unknown | none | no chemicals specified | CHUY'S TIRE SERVICE |
| unknown | none | no chemicals specified | JESUS MERCADO |
| unknown | none | no chemicals specified | JERRY D SMITH/CALIFORNIA HIGHWAY PATROL |
| unknown | none | no chemicals specified | OAO CORP/TIM CONWAY |
| unleaded fuel, diesel fuel | hydrocarbons in the range of C ₄ through C ₁₂ for unleaded fuel and hydrocarbons in the range from C ₁₀ through C ₂₂ for diesel fuel, benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline | LOS ANGELES COUNTY FIRE STATION #82 |
| unleaded fuel, diesel fuel | hydrocarbons in the range of C ₄ through C ₁₂ for unleaded fuel and hydrocarbons in the range from C ₁₀ through C ₂₂ for diesel fuel, benzene, toluene, ethylbenzene, xylenes | chemicals in gasoline | OAK GROVE WORK CTR |
| uns-di-methyl-hydrazine (UDMH) | uns-di-methyl-hydrazine (UDMH) | chemical listed | JPL |
| unspecified oil-containing waste | hydrocarbons with C ₁₈ or greater | specific chemicals in oil-containing waste are not specified | RALPHS GROCERY CO #55, GOODYEAR AUTO SERVCE CENTER, JPL, ALBERTO RODRIQUEZ, FOOTHILL VOLKSWAGEN, AUTOSPORT ENGINES, ALLIANCE AUTOMOTIVE |

TABLE 2-14
Summary of Chemicals from Known and Potential Sources

| Analyte/Group | Analytes | Rationale for Selecting Chemical | Facility/Source |
|---------------|----------|----------------------------------|-----------------|
| xylene | xylene | chemical listed | JPL |
| zinc | zinc | chemical listed | JPL |

¹ EPA FedSite: Medical Clinics - Photographic Chemicals - Impact and Regulations; <http://www.epa.gov/fedsite/medical/photo.html>

² EPA Guides to Pollution Prevention - The Paint Manufacturing Industry, EPA/625/7-90/005, June 199

JPL = Jet Propulsion Laboratory

Table 2-15. Summary of Vulnerability of Groundwater to Facilities Within the Capture Zones of the Production Wells

| Map ID | Map ID Number | Facility Name | Activity | Groundwater Potentially Vulnerable? | Explanation for Vulnerability |
|---|---------------|--|---|-------------------------------------|---|
| Potential Sources Located within the Capture Zone | | | | | |
| A | none | Southern California Edison – Arroyo Substation | Substation | No | PCBs not expected to migrate to groundwater |
| A | none | Jet Propulsion Laboratory | Research | Yes | Chemicals detected on-site which would be expected to migrate to groundwater |
| B | 10, 11, 12 | Pacific Bell | Telephone service | Yes | Components of diesel fuel detected in groundwater |
| B | 13 | LA County Fire Camp 2 | Unknown | Unknown | Activities unknown at this address |
| K | 52, 53 | Szikba Auto | Automotive Service/ Repair | Yes | Release of gasoline occurred. However, remediation was performed and contaminated soil removed. Potential for residual leaching to groundwater. |
| K | 54, 55, 56 | Arco Products #80900 | Automotive Service/ Repair | Yes | Release of gasoline occurred. However, remediation was performed and contaminated soil removed. Potential for residual leaching to groundwater. |
| K | 60 | George's Drive in Liquors | Automotive Service/ Repair | Yes | Release of gasoline occurred. However, remediation was performed and contaminated soil removed. Potential for residual leaching to groundwater. |
| K | 62 | UNOCAL Service Station | Automotive Service/ Repair | Yes | Release of gasoline occurred. However, remediation was performed and contaminated soil removed. Potential for residual leaching to groundwater. |
| | 23 | Pasadena Training School | Education | No | Chemicals associated with this facility would not migrate towards groundwater. |
| | 30 | Pasadena School District | Education | No | Chemicals (i.e., asbestos) associated with this facility would not migrate towards groundwater. |
| | 39 | Frank McHugh | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 57 | Loma Alta Company Park | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 72 | Clifford Beyers | Unknown | Yes | Laboratory waste chemicals are associated with this facility. |
| | 87 | Altadena Chevron | Automotive Service/ Repair | Yes | No known release, but petroleum hydrocarbon constituents are associated with this type of facility. |
| | 88 | Thomas A. Edison Elementary School | Education | No | Chemicals associated with this facility would not migrate towards groundwater. |
| | 89 | L.T. | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 90 | LA County Fire Station #12 | Fire Station | Unknown | Unknown chemicals associated with this facility. |
| | 91 | Pasadena Unified School District | Education | No | Chemicals associated with this facility would not migrate towards groundwater. |
| | 92 | Old Chevron Station, J. Lee Hartman, Alliance Automotive | Automotive Service/ Repair | Yes | No known release, but petroleum hydrocarbon constituents are associated with this type of facility. |
| | 93 | Not Reported | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 94 | Rubio Cañon Land & Water Association | Public Drinking Water Supply | Unknown | Unknown chemicals associated with this facility. |
| | 95 | Paramount Cleaners | Dry Cleaner | Yes | Chlorinated compounds are associated with this facility. |
| | 96 | Foothills Moving Center/ U-Haul | Moving Company | Unknown | Unknown chemicals associated with this facility. |
| | 97 | Lita McDonald | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 98 | Poppy/Pansey Cleaners | Dry Cleaner | Yes | Chlorinated compounds are associated with this facility. |
| | 99 | Chuy's Tire Service | Automotive Service/ Repair | Yes | Solvents/petroleum hydrocarbons associated with this facility. |
| | 100 | LA County DPW Road Div 521/Maintenance District #2 | Maintenance Buildings | Yes | Solvents/petroleum hydrocarbons associated with this facility. |
| | 103 | Community Development Commission | Office Building | Unknown | Unknown chemicals associated with this facility. |
| | 105 | Exxon USA/ARCO; 1X Mobil Oil/Mobil Oil Corp | Automotive Service/ Repair | Yes | unspecified oil containing wastes |
| Potential Sources Located Outside the Capture Zone but Upgradient of Groundwater Flow Path | | | | | |
| C | none | Saint Francis High School | School | Unknown | Unknown chemicals associated with this facility. |
| D | none | Flintridge Preparatory School | School | Unknown | Unknown chemicals associated with this facility. |
| E | none | Flintridge Riding Club | Club | Yes | Unknown substance released into soil |
| H | none | Independent Mercedes | Automotive Service/ Repair | Yes | Petroleum hydrocarbons associated with this facility. |
| I | none | La Canada Tire, Bow Tie Cleaners, Crystal Cleaners, Los Gringos Locos LLC, and Foothill Volkswagen | Automotive Service/ Repair; Dry Cleaner | Yes | Solvents/petroleum hydrocarbons associated with this facility. |
| J | 50, 51 | La Canada Wastewater Reclamation Plant | Wastewater treatment | Yes | Outside capture zone, but chemicals would migrate towards capture zone. |
| L | none | Ralphs Grocery Company, Truemark Property Management, Palace Cleaners | Office Building; Dry cleaner | Yes | Solvents associated with this facility. |
| N | none | Ralphs Grocery Company #55 | Retail | Unknown | Unknown chemicals associated with this facility. |
| O | none | ARCO Products Company | Automotive Service/ Repair | Yes | Petroleum hydrocarbons associated with this facility. |
| | 17 | Saint Bede Church | Church | Unknown | Unknown chemicals associated with this facility. |
| | 19 | Saint Francis High School | School | Unknown | Unknown chemicals associated with this facility. |
| | 22 | G. T. Equipment | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 28 | Oak Grove Ranger Station | Office | Unknown | Unknown chemicals associated with this facility. |
| | 31 | Los Angeles County Fire Station | Fire Station | Unknown | Unknown chemicals associated with this facility. |
| | 32 | Name not reported | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 37 | Goodyear Auto Service Center | Automotive Service/ Repair; Dry Cleaner | Yes | Solvents/petroleum hydrocarbons associated with this facility. |
| | 38 | Arnold B. Cotton | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 40 | Los Angeles County Fire Station #82 | Fire Station | Unknown | Unknown chemicals associated with this facility. |
| | 43 | United States Department of Agriculture – Forest/Oak Grove Station | Ranger Station | Yes | Gasoline released into soil in 1990 |
| | 47 | 1X Donald L. Sheppard | Unknown | Unknown | Unknown chemicals associated with this facility. |
| | 59 | Knight Way School | School | Unknown | Unknown chemicals associated with this facility. |
| | 61 | Independent Mercedes | Automotive Service/ Repair | Yes | Petroleum hydrocarbons associated with this facility. |
| | 75 | William Barber | Unknown | Unknown | Unknown chemicals associated with this facility. |

TABLE 2-16
Summary of Chemicals Detected in the Source Water

| Analyte | | | | | |
|--------------------------------|----------------------------|-----------------------------|--------------------------|---------------------------|--|
| 1,1,1-Trichloroethane | benzo (g,h,i) perylene | Di-n-butylphthalate | Phenanthrene | Bromochloromethane | |
| 1,1,2-Trichlorotrifluoroethane | benzo(a)anthracene | Ethylbenzene | Phenol | Chlorate | |
| 1,1-Dichloroethane | benzo(a)pyrene | Fluoranthene | Potassium | cis-1,2-Dichloroethene | |
| 1,1-Dichloroethene | benzo(b)fluoranthene | Fluoride | Pyrene | trans-1,2-Dichloroethene | |
| 1,2,3-Trichlorobenzene | benzo(k)fluoranthene | Gross alpha | Radium 226 | 1,2,3-Trichloropropane | |
| 1,2,3-Trichloropropane | bis(2-Ethylhexyl)phthalate | Gross beta | Radium 228 | Carbonyl sulfide | |
| 1,2,4-Trichlorobenzene | Boron | Indeno(1,2,3-c,d)pyrene | Selenium | N-nitrosodimethylamine | |
| 1,2-Dichloroethane | Bromodichloromethane | Iron | Simazine | N-nitrosodiphenylamine | |
| 1,4-Dichlorobenzene | Bromoform | Lead | Sodium | N-nitrosodi-n-propylamine | |
| 1,4-Dioxane | Cadmium | m,p-Xylene | Strontium | TPH-diesel | |
| 2,4-Dinitrotoluene | Calcium | Magnesium | Styrene | TPH-gasoline | |
| 2-Butanone | Carbon disulfide | Manganese | Tetrachloroethylene | RDX | |
| 2-Chlorophenol | Carbon Tetrachloride | Mercury | Thallium | HMX | |
| 4-Chloro-3-methylphenol | Chloroform | Methylene Chloride | Toluene | Trinitrotoluene | |
| 4-Nitrophenol | Chloromethane | Methyl-t-Butyl Ether (MTBE) | Tributyl tin | Propachlor | |
| Acenaphthene | Chromium | Molybdenum | Trichloroethene | Hexane | |
| Acetone | Chromium, Hexavalent | Naphthalene | Trichlorofluoromethane | Beryllium | |
| Aluminum | Chrysene | Nickel | Trichlorotrifluoroethane | Bromide | |
| Antimony | Combined RA226/RA228 | Nitrosodipropylamine | Uranium | Chloride | |
| Arsenic | Copper | N-Nitrosodimethylamine | Vanadium | Nitrates | |
| Atrazine | Cyanide | O-xylene | Vinyl Chloride | Silver | |
| Barium | Dibromochloromethane | Pentachlorophenol | Zinc | Sulfate | |
| Benzene | Dibromofluoromethane | Perchlorate | | | |

TABLE 2-17
Summary of Chemicals not Detected in the Source Water but Associated with Known and Other Potential Sources

| Analytes | | |
|--|---|--------------------------------|
| 1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin (OCDD) | cresols | polyurethane |
| 1,2-dichlorobenzene (1,2-DCB) | di-isopropyl ether (DIPE) | propane |
| acetic acid | ethylene diamine | sulfuric acid |
| ammonia isotopes N ¹⁴ and N ¹⁵ | ethyl-t-butyl ether (ETBE) | t-amyl methyl ether (TAME) |
| ammonium | fluorene | t-butyl alcohol (TBA) |
| aniline | formaldehyde | uns-di-methyl-hydrazine (UDMH) |
| arochlor-1242 | fuming nitric acid | |
| arochlor-1254 | hydrazine | |
| arochlor-1260 | hydrochloric acid | |
| arsenic trioxide | hydroquinone | |
| ballastite | iron oxide | |
| butylbenzylphthalate | monomethyl hydrazine (MMH) | |
| calcium permanganate | nitrofluoride | |
| chlorine trifluoride | nitrogen tetroxide | |
| chlorobenzene | nitromethane | |
| chlorodifluoromethane | polybutadiene acrylic acid acrylonitrile terpolymer binder | |
| chromic acid | polychlorinated biphenyls (PCBs) | |

TABLE 3-1

Summary of Historical Water Quality Data for the Arroyo Well (June 1985 until April 1999)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---|----------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| | | | | | | | | | | | | |
| Carbon Tetrachloride | µg/L | 45 | 45 | 100% | 1.3 | 15 | 4.7 | 0.50 | -- | 0.10 | -- | 0.50 |
| Calcium | mg/L | 7 | 7 | 100% | 45 | 158 | 65 | -- | -- | -- | -- | -- |
| Magnesium | mg/L | 6 | 6 | 100% | 11.4 | 16.6 | 14.7 | -- | -- | -- | -- | -- |
| Potassium | mg/L | 5 | 5 | 100% | 2.5 | 3.6 | 2.9 | -- | -- | -- | -- | -- |
| Sodium | mg/L | 6 | 6 | 100% | 20 | 25 | 22 | -- | -- | -- | -- | -- |
| Chloride | mg/L | 7 | 7 | 100% | 8.5 | 39.9 | 21.4 | -- | 500 | -- | -- | 500 |
| Fluoride | mg/L | 7 | 7 | 100% | 0.40 | 0.80 | 0.587 | 2 | -- | -- | -- | 2 |
| Sulfate (SO4) | mg/L | 7 | 7 | 100% | 25.1 | 70 | 38.7 | -- | 500 | -- | -- | 500 |
| Gross Alpha | pCi/L | 12 | 12 | 100% | 1.2 | 6.6 | 3.66 | 15 | -- | -- | -- | 15 |
| Gross Beta | pCi/L | 7 | 7 | 100% | 1.5 | 7.2 | 4.9 | 50 | -- | -- | -- | 50 |
| Radium 226 | pCi/L | 1 | 1 | 100% | 0.080 | 0.080 | 0.080 | 5 (a) | -- | -- | -- | 5 (a) |
| Radium 228 | pCi/L | 1 | 1 | 100% | 0.26 | 0.26 | 0.26 | 5 (a) | -- | -- | -- | 5 (a) |
| Uranium | PCi/L | 5 | 5 | 100% | 2.2 | 4.0 | 3.3 | 20 | -- | -- | -- | 20 |
| Chloroform | µg/L | 44 | 44 | 100% | 1.2 | 15 | 3.95 | 100 | -- | -- | -- | 100 |
| Chlorthal | µg/L | 1 | 1 | 100% | 0.1 | 0.1 | 0.10 | -- | -- | -- | -- | -- |
| Alkalinity | mg/L | 8 | 8 | 100% | 146 | 205 | 173 | -- | -- | -- | -- | -- |
| Alkalinity (total) | mg/L | 6 | 6 | 100% | 122 | 171.8 | 151.8 | -- | -- | -- | -- | -- |
| Corrosivity | unk | 1 | 1 | 100% | 11.78 | 11.78 | 11.78 | -- | non corrosive | -- | -- | non corrosive |
| Hardness (total as CaCO3) | mg/L | 7 | 7 | 100% | 180.2 | 199.2 | 204.8 | -- | -- | -- | -- | -- |
| pH | pH units | 7 | 7 | 100% | 7.37 | 8.35 | 7.71 | -- | -- | -- | -- | -- |
| Conductance | US | 7 | 7 | 100% | 385.0 | 838.0 | 498.4 | -- | 1600 | -- | -- | 1600 |
| Total Dissolved Solids | mg/L | 8 | 8 | 100% | 234.0 | 494 | 290.90 | -- | 1000 | -- | -- | 1000 |
| Perchlorate | mg/L | 12 | 12 | 100% | 0.0420 | 0.160 | 0.096 | -- | -- | 0.006 | 0.0060 | 0.0060 |
| Total Trihalomethanes | µg/L | 40 | 42 | 95% | 1.2 | 9.8 | 3.98 | -- | -- | -- | -- | -- |
| Trichloroethene | µg/L | 46 | 49 | 94% | 1.2 | 15 | 3.7 | 5.0 | -- | 0.80 | -- | 5.0 |
| Nitrate -NO3 | mg/L | 8 | 9 | 89% | 1.4 | 59.2 | 12.510 | 45 | -- | -- | -- | 45 |
| Bicarbonate (as HCO3) | mg/L | 6 | 7 | 86% | 136.0 | 244.0 | 173.3 | -- | -- | -- | -- | -- |
| Turbidity | NTU | 6 | 7 | 86% | 0.05 | 0.35 | 0.16 | -- | 5 | -- | -- | 5 |
| bis(2-Ethylhexyl)phthalate | µg/L | 1 | 2 | 50% | 5.0 | 5.0 | 4.0 | 4.0 | -- | 12 | -- | 4.0 |
| Foaming Agents (MBAS) | µg/L | 3 | 6 | 50% | 0.02 | 20.0 | 3.35 | -- | 500 | -- | -- | 500 |
| Atrazine | µg/L | 2 | 5 | 40% | 0.50 | 0.50 | 0.50 | 1.0 | -- | 0.15 | -- | 1.0 |
| Tetrachloroethene | µg/L | 13 | 39 | 33% | 0.20 | 1.1 | 0.37 | 5.0 | -- | 0.060 | -- | 5.0 |
| Carbonate (as CO3) | mg/L | 2 | 6 | 33% | 3.02 | 6.2 | 1.70 | -- | -- | -- | -- | -- |
| Simazine | µg/L | 2 | 7 | 29% | 0.50 | 0.50 | 0.50 | 4.0 | -- | 4.0 | -- | 4.0 |
| 1,2-Dichloroethane | µg/L | 10 | 38 | 26% | 0.22 | 3.3 | 0.47 | 0.50 | -- | 0.40 | -- | 0.50 |
| Iron | mg/L | 1 | 4 | 25% | 0.041 | 0.041 | 0.048 | -- | 0.30 | -- | -- | 0.30 |
| Manganese | mg/L | 1 | 4 | 25% | 0.018 | 0.018 | 0.016 | -- | 0.050 | -- | -- | 0.050 |
| Copper | mg/L | 1 | 4 | 25% | 0.049 | 0.049 | 0.026 | 1.3 | 1.0 | 0.17 | -- | 1.3 |
| Zinc | mg/L | 1 | 4 | 25% | 0.027 | 0.027 | 0.020 | -- | 5.0 | -- | -- | 5.0 |
| Bromodichloromethane | µg/L | 8 | 33 | 24% | 0.30 | 2.2 | 0.36 | 100 | -- | -- | -- | 100 |
| Silver | mg/L | 1 | 5 | 20% | 0.01 | 0.01 | 0.0055 | -- | 0.10 | -- | -- | 0.10 |
| Barium | mg/L | 2 | 12 | 17% | 0.04 | 0.042 | 0.0464 | 1.0 | -- | -- | -- | 1.0 |
| Mercury | mg/L | 1 | 8 | 13% | 0.0008 | 0.0008 | 0.0006 | 0.0020 | -- | 0.0012 | -- | 0.0020 |
| Selenium | mg/L | 1 | 8 | 13% | 0.00062 | 0.00062 | 0.004 | 0.050 | -- | -- | -- | 0.050 |
| Dibromochloromethane | µg/L | 2 | 30 | 7% | 0.60 | 1.3 | 0.28 | 100 | -- | -- | -- | 100 |
| 1,1,1-Trichloroethane | µg/L | 2 | 31 | 6% | 0.40 | 0.40 | 0.48 | 200 | -- | -- | -- | 200 |
| Methylene Chloride | µg/L | 2 | 33 | 6% | 0.60 | 0.70 | 0.30 | 5.0 | -- | 4.0 | -- | 5.0 |
| 1,1,2-Trichlorotrifluoroethane | µg/L | 1 | 18 | 6% | 0.80 | 0.80 | 4.24 | 1,200 | -- | 4,000 | -- | 1,200 |
| 1,2,4-Trichlorobenzene | µg/L | -- | 28 | 0% | -- | -- | -- | 5 | -- | 5.0 | -- | 5 |
| 1,2,4-Trimethylbenzene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | 330 | -- | 330 |
| 1,4-Dichlorobenzene | µg/L | -- | 30 | 0% | -- | -- | -- | 5.0 | -- | 6.0 | -- | 5.0 |
| 2,4,6-Trichlorophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | 100 | -- | 100 |
| 2,4-Dinitrophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-o-cresol) | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenylether | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chlorophenylether | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Alachlor | µg/L | -- | 5 | 0% | -- | -- | -- | 2.0 | -- | 4.0 | -- | 2.0 |
| Aldrin | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | 0.0020 | 0.0020 |
| Alpha-BHC | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | 0.015 | 0.015 |
| Benzidine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Beta-BHC | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | 0.025 | 0.025 |
| bis(2-Chloroethoxy)methane | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroisopropyl)ether | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromacil | µg/L | -- | 4 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Delta-BHC | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | 0.025 | 0.025 |
| Dieldrin | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | 0.0020 | 0.0020 |
| Diethylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethoate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 1.0 | 1.0 |
| Dimethylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,6-Dinitro-o-cresol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 3-1

Summary of Historical Water Quality Data for the Arroyo Well (June 1985 until April 1999)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|--|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|----------|------------------|-------------------------------|
| Di-n-octylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin | µg/L | -- | 10 | 0% | -- | -- | -- | 2.0 | -- | 1.8 | -- | 2.0 |
| Fluoranthene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| gamma-BHC (Lindane) | µg/L | -- | 10 | 0% | -- | -- | -- | 0.20 | -- | 0.032 | -- | 0.20 |
| Heptachlor | µg/L | -- | 7 | 0% | -- | -- | -- | 0.010 | -- | 0.0080 | -- | 0.010 |
| Heptachlor Epoxide | µg/L | -- | 7 | 0% | -- | -- | -- | 0.010 | -- | 0.0060 | -- | 0.010 |
| Hexachlorobenzene | µg/L | -- | 4 | 0% | -- | -- | -- | 1.0 | -- | -- | -- | 1.0 |
| Hexachlorobutadiene | µg/L | -- | 28 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene | µg/L | -- | 4 | 0% | -- | -- | -- | 50 | -- | 50 | -- | 50 |
| Hexachloroethane | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| m-Dichlorobenzene (1,3-DCB) | µg/L | -- | 30 | 0% | -- | -- | -- | -- | -- | 600 | 600 | 600 |
| Methoxychlor | µg/L | -- | 10 | 0% | -- | -- | -- | 30 | -- | 30 | -- | 30 |
| Molinate | µg/L | -- | 4 | 0% | -- | -- | -- | 20 | -- | -- | -- | 20 |
| Naphthalene | µg/L | -- | 19 | 0% | -- | -- | -- | -- | -- | -- | 17 | 17 |
| Nitrobenzene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Nitrosodipropylamine (N-Nitrosodi-N-propylamine) | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodimethylamine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 0.010 | 0.010 |
| N-Nitrosodiphenylamine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| o-Dichlorobenzene (1,2-DCB) | µg/L | -- | 30 | 0% | -- | -- | -- | -- | -- | -- | 600 | 600 |
| Pentachlorobenzene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | µg/L | -- | 3 | 0% | -- | -- | -- | 1.0 | -- | 0.40 | -- | 1.0 |
| Phenanthrene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 4,200 | 4,200 |
| Prometryn | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Thiobencarb | µg/L | -- | 4 | 0% | -- | -- | -- | 70 | 1.0 | 70 | -- | 70 |
| Trifluralin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-TP | µg/L | -- | 7 | 0% | -- | -- | -- | 50 | -- | -- | -- | 50 |
| 2,4-D | µg/L | -- | 7 | 0% | -- | -- | -- | 70 | -- | 70 | -- | 70 |
| 2,4,7,8-TCDD (dioxin) | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endothall | µg/L | -- | 3 | 0% | -- | -- | -- | 100 | -- | 580 | -- | 100 |
| Merphos | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Aluminum | µg/L | -- | 3 | 0% | -- | -- | -- | 1.0 | 0.20 | 0.60 | -- | 1.0 |
| Arsenic | µg/L | -- | 5 | 0% | -- | -- | -- | 50.000 | -- | -- | -- | 50.000 |
| Cadmium | µg/L | -- | 5 | 0% | -- | -- | -- | 0.0050 | -- | 7.00E-05 | -- | 0.0050 |
| Chromium | µg/L | -- | 5 | 0% | -- | -- | -- | 0.050 | -- | -- | -- | 0.050 |
| Lead | µg/L | -- | 5 | 0% | -- | -- | -- | 0.015 | -- | 0.0020 | -- | 0.015 |
| Acenaphthene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| benzo (g,h,i) perylene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| benzo(a)anthracene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| benzo(a)pyrene | µg/L | -- | 2 | 0% | -- | -- | -- | 0.20 | -- | 0.0040 | -- | 0.20 |
| benzo(b)fluoranthene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| benzo(k)fluoranthene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1016 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1221 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1232 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1242 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1248 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1254 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1260 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Polychlorinated Biphenyls | µg/L | -- | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDD | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDE | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDT | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Aldicarb | µg/L | -- | 7 | 0% | -- | -- | -- | -- | -- | -- | 7.0 | 7.0 |
| Aldicarb Sulfone | µg/L | -- | 6 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Aldicarb Sulfoxide | µg/L | -- | 6 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Benfluralin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Bentazon | µg/L | -- | 3 | 0% | -- | -- | -- | 18 | -- | 200 | -- | 18 |
| Captan | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 1.5 | 1.5 |
| Carbofuran | µg/L | -- | 7 | 0% | -- | -- | -- | 18 | -- | 1.7 | -- | 18 |
| Chlordane | µg/L | -- | 7 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordimeform | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chloropicrin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 56 | 56 |
| Chlorothalonil | µg/L | -- | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| cis-Permethrin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Cyazine | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dacthal | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dalapon | µg/L | -- | 3 | 0% | -- | -- | -- | 200 | -- | 790 | -- | 200 |
| Diazinon | µg/L | -- | 3 | 0% | -- | -- | -- | -- | -- | -- | 6.0 | 6.0 |
| Dicofol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dinoesb | µg/L | -- | 2 | 0% | -- | -- | -- | 7.0 | -- | 14 | -- | 7.0 |
| Diphenamide | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 200 | 200 |
| Endosulfan I | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 3-1
Summary of Historical Water Quality Data for the Arroyo Well (June 1985 until April 1999)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| Fluchloralin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Glyphosate | µg/L | -- | 6 | 0% | -- | -- | -- | 700 | -- | 1,000 | -- | 700 |
| Napropamide | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Oryzalin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Picloram | µg/L | -- | 1 | 0% | -- | -- | -- | 500 | -- | 500 | -- | 500 |
| Propanamide | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Propargite | mg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| s,s,s-Tributylphosphorothioate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Toxaphene | µg/L | -- | 10 | 0% | -- | -- | -- | 3.0 | -- | -- | -- | 3.0 |
| trans-Permethrin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1,1,2-Tetrachloroethane | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | µg/L | -- | 30 | 0% | -- | -- | -- | 1.0 | -- | -- | -- | 1.0 |
| 1,1,2-Trichloroethane | µg/L | -- | 30 | 0% | -- | -- | -- | 5.0 | -- | -- | -- | 5.0 |
| 1,1-Dichloroethane | µg/L | -- | 30 | 0% | -- | -- | -- | 5.0 | -- | -- | -- | 5.0 |
| 1,1-Dichloroethene | µg/L | -- | 30 | 0% | -- | -- | -- | 6.0 | -- | 10 | -- | 6.0 |
| 1,1-Dichloropropene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-Trichlorobenzene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-Trichloropropane | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | 0.0050 | 0.0050 |
| 1,2-Dibromo-3-Chloropropane (DBCP) | µg/L | -- | 6 | 0% | -- | -- | -- | 0.010 | -- | 0.0017 | -- | 0.010 |
| 1,2-Dibromoethane (EDB) | µg/L | -- | 6 | 0% | -- | -- | -- | 0.050 | -- | -- | -- | 0.050 |
| 1,2-Dichloroethene | µg/L | -- | 8 | 0% | -- | -- | -- | 10 | -- | -- | -- | 10 |
| 1,2-Dichloropropane | µg/L | -- | 30 | 0% | -- | -- | -- | 5.0 | -- | 0.50 | -- | 5.0 |
| 1,3,5-Trimethylbenzene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3-dichloropropane | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,2-Dichloropropane | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Butanone | µg/L | -- | 6 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloroethylvinylether | µg/L | -- | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorotoluene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | 140 | 140 |
| 3-Hydroxycarbofuran | µg/L | -- | 6 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chlorotoluene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | 140 | 140 |
| Benzene | µg/L | -- | 30 | 0% | -- | -- | -- | 1.0 | -- | 0.15 | -- | 1.0 |
| Bromobenzene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromochloromethane | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromoform | µg/L | -- | 30 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| Bromomethane | µg/L | -- | 30 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlorobenzene | µg/L | -- | 30 | 0% | -- | -- | -- | 70 | -- | -- | -- | 70 |
| Chloroethane | µg/L | -- | 30 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chloromethane | µg/L | -- | 30 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| cis-1,2-Dichloroethene | µg/L | -- | 28 | 0% | -- | -- | -- | 6.0 | -- | -- | -- | 6.0 |
| cis-1,3-Dichloropropene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibromomethane | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dichlorodifluoromethane | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | 1,000 | 1,000 |
| Ethylbenzene | µg/L | -- | 30 | 0% | -- | -- | -- | 300 | -- | 300 | -- | 300 |
| Isopropylbenzene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | 770 | 770 |
| Kerosene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| m,p-Xylene | µg/L | -- | 27 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- | 1,750 |
| Methyl Isobutyl Ketone (4-methyl-2-pentanone) | µg/L | -- | 6 | 0% | -- | -- | -- | -- | -- | -- | 120 | 120 |
| Methyl-t-Butyl Ether (MTBE) | µg/L | -- | 14 | 0% | -- | -- | -- | 13 | 5.0 | 13 | -- | 13 |
| n-Butylbenzene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | 70 | 70 |
| n-Propylbenzene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| o-Xylene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| p-isopropyltoluene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| sec-Butylbenzene | µg/L | -- | 27 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| Styrene | µg/L | -- | 27 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| tert-Butylbenzene | µg/L | -- | 25 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| Toluene | µg/L | -- | 30 | 0% | -- | -- | -- | 150 | -- | 150 | -- | 150 |
| trans-1,3-Dichloropropene | µg/L | -- | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Trichlorofluoromethane | µg/L | -- | 30 | 0% | -- | -- | -- | 150 | -- | 700 | -- | 150 |
| Vinyl Chloride | µg/L | -- | 30 | 0% | -- | -- | -- | 0.50 | -- | 0.50 | -- | 0.50 |
| Xylenes, Total | µg/L | -- | 30 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- | 1,750 |

Shading indicates exceedence of applicable standard.

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; proposed CA Primary MCL and CA PHG are not included.

(a) The MCL is 5 pCi/L for Radium-226 and Radium-228 combined.

CA = California

MCL = maximum contaminant level

PHG = public health goal

DHS = Department of Health Services

Bolding of value and qualifier means that the detection limit exceeds a CA Primary/Secondary MCL, or DHS Action Level.

TABLE 3-2

Summary of Historical Water Quality Data for Well 52 (June 1985 Through May 2002)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|-----------------------------|----------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| | | | | | | | | -- | -- | 0.006 | 0.0060 | 0.0060 |
| Perchlorate | mg/L | 182 | 182 | 100% | 0.0060 | 0.039 | 0.022 | -- | -- | -- | -- | -- |
| Carbon Tetrachloride | µg/L | 54 | 79 | 68% | 0.50 | 4.8 | 1.2 | 0.50 | -- | 0.10 | -- | 0.50 |
| Boron | mg/L | 2 | 2 | 100% | 0.13 | 0.16 | 0.14 | -- | -- | -- | 1.0 | 1.0 |
| Chloride | mg/L | 8 | 8 | 100% | 23.3 | 42.0 | 24.8 | -- | 500 | -- | -- | 500 |
| Fluoride | mg/L | 8 | 8 | 100% | 0.42 | 1.15 | 0.714 | 2 | -- | -- | -- | 2 |
| Sulfate (SO4) | mg/L | 8 | 8 | 100% | 35.2 | 48 | 41.6 | -- | 500 | -- | -- | 500 |
| Vanadium | mg/L | 2 | 2 | 100% | 0.0094 | 0.013 | 0.011 | -- | -- | -- | 0.050 | 0.050 |
| Combined RA226/RA228 | pCi/L | 2 | 2 | 100% | 0.59 | 0.85 | 0.72 | 5 | -- | -- | -- | 5 |
| Gross Alpha | pCi/L | 10 | 10 | 100% | 2.4 | 5.9 | 4.3 | 15 | -- | -- | -- | 15 |
| Gross Beta | pCi/L | 4 | 4 | 100% | 1.7 | 6.7 | 3.7 | 50 | -- | -- | -- | 50 |
| Radium 226 | pCi/L | 1 | 1 | 100% | 0.11 | 0.11 | 0.11 | 5 (a) | -- | -- | -- | 5 (a) |
| Radium 228 | pCi/L | 1 | 1 | 100% | 0.055 | 0.055 | 0.055 | 5 (a) | -- | -- | -- | 5 (a) |
| Uranium | pCi/L | 7 | 7 | 100% | 1.5 | 4.0 | 2.9 | 20 | -- | -- | -- | 20 |
| Chloroform | µg/L | 79 | 79 | 100% | 0.50 | 3.0 | 1.1 | 100 | -- | -- | -- | 100 |
| Conductance | US | 5 | 5 | 100% | 463.0 | 519.0 | 516.0 | -- | 900.0 | -- | -- | 900 |
| Total Dissolved Solids | mg/L | 5 | 5 | 100% | 290.0 | 330 | 315.80 | -- | 1000 | -- | -- | 1000 |
| Trichloroethene | µg/L | 84 | 85 | 99% | 1.3 | 7.3 | 3.2 | 5.0 | -- | 0.80 | -- | 5.0 |
| Nitrate -NO3 | mg/L | 54 | 57 | 95% | 6.5 | 55.0 | 19.963 | 45 | -- | -- | -- | 45 |
| Turbidity | NTU | 4 | 5 | 80% | 0.07 | 0.50 | 0.17 | -- | 5.00 | -- | -- | 5 |
| bis(2-Ethylhexyl)phthalate | µg/L | 1 | 2 | 50% | 5 | 5 | 4 | 4.0 | -- | 12 | -- | 4.0 |
| Foaming Agents (MBAS) | µg/L | 2 | 6 | 33% | 0.04 | 0.3 | 0.06 | -- | 500 | -- | -- | 500 |
| Arsenic | mg/L | 1 | 5 | 20% | 0.0020 | 0.0020 | 0.0012 | 0.050 | -- | -- | -- | 0.050 |
| Barium | mg/L | 1 | 5 | 20% | 0.051 | 0.051 | 0.050 | 1.0 | -- | -- | -- | 1.0 |
| Lead | mg/L | 1 | 5 | 20% | 0.0040 | 0.0040 | 0.0028 | 0.015 | -- | 0.0020 | -- | 0.015 |
| Zinc | mg/L | 1 | 5 | 20% | 0.035 | 0.035 | 0.024 | -- | 5.0 | -- | -- | 5.0 |
| Tetrachloroethylene | µg/L | 11 | 64 | 17% | 0.10 | 3.8 | 0.36 | 5.0 | -- | 0.060 | -- | 5.0 |
| Chromium | mg/L | 2 | 13 | 15% | 0.0021 | 0.0023 | 0.0023 | 0.050 | -- | -- | -- | 0.050 |
| Bromoform | µg/L | 2 | 58 | 3% | 0.69 | 0.69 | 0.25 | 100 | -- | -- | -- | 100 |
| Ethylbenzene | µg/L | 1 | 55 | 2% | 0.71 | 0.71 | 0.25 | 300 | -- | 300 | -- | 300 |
| Benzene | µg/L | 1 | 56 | 2% | 0.5 | 0.5 | 0.245 | 1.0 | -- | 0.15 | -- | 1.0 |
| Methylene Chloride | µg/L | 1 | 58 | 2% | 1.3 | 1.3 | 0.28 | 5.0 | -- | 4.0 | -- | 5.0 |
| 1,2-Dichloroethane | µg/L | 1 | 59 | 2% | 1.0 | 1.0 | 0.26 | 0.50 | -- | 0.40 | -- | 0.50 |
| Calcium | mg/L | 5 | 5 | 100% | 35 | 130 | 66 | -- | -- | -- | -- | -- |
| Chromium, Hexavalent | mg/L | 1 | 1 | 100% | 0.0021 | 0.0021 | 0.0021 | -- | -- | -- | -- | -- |
| Magnesium | mg/L | 4 | 4 | 100% | 12 | 63 | 26 | -- | -- | -- | -- | -- |
| Potassium | mg/L | 2 | 2 | 100% | 1.5 | 2.0 | 1.7 | -- | -- | -- | -- | -- |
| Sodium | mg/L | 5 | 5 | 100% | 18 | 34 | 27 | -- | -- | -- | -- | -- |
| Chloral | µg/L | 1 | 1 | 100% | 0.1 | 0.1 | 0.10 | -- | -- | -- | -- | -- |
| Alkalinity | mg/L | 5 | 5 | 100% | 146 | 179 | 170 | -- | -- | -- | -- | -- |
| Ammonia | mg/L | 1 | 1 | 100% | 0.12 | 0.12 | 0.1 | -- | -- | -- | -- | -- |
| Corrosivity | unk | 1 | 1 | 100% | 11.79 | 11.79 | 11.79 | -- | Non corrosive | -- | -- | -- |
| Hardness (total as CaCO3) | mg/L | 4 | 4 | 100% | 136.0 | 206.9 | 167.0 | -- | | -- | -- | -- |
| pH | pH units | 5 | 5 | 100% | 7.30 | 7.54 | 7.43 | -- | -- | -- | -- | -- |
| Total Trihalomethanes | µg/L | 74 | 76 | 97% | 0.5 | 2.7 | 1.08 | -- | -- | -- | -- | -- |
| Bicarbonate (as HCO3) | mg/L | 3 | 4 | 75% | 160.0 | 218.9 | 139.2 | -- | -- | -- | -- | -- |
| 1,2,4-Trichlorobenzene | µg/L | -- | 52 | 0% | -- | -- | -- | 5 | -- | 5.0 | -- | 5 |
| 1,2,4-Trimethylbenzene | µg/L | -- | 51 | 0% | -- | -- | -- | -- | -- | 330 | -- | 330 |
| 1,4-Dichlorobenzene | µg/L | -- | 55 | 0% | -- | -- | -- | 5.0 | -- | 6.0 | -- | 5.0 |
| 2,4-Dimethylphenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | 100 | -- | 100 |
| Alachlor | µg/L | -- | 6 | 0% | -- | -- | -- | 2.0 | -- | 4.0 | -- | 2.0 |
| Alpha-BHC | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | 0.015 | 0.015 |
| Atrazine | µg/L | -- | 8 | 0% | -- | -- | -- | 1.0 | -- | 0.15 | -- | 1.0 |
| Endrin | µg/L | -- | 7 | 0% | -- | -- | -- | 2.0 | -- | 1.8 | -- | 2.0 |
| gamma-BHC (Lindane) | µg/L | -- | 7 | 0% | -- | -- | -- | 0.20 | -- | 0.032 | -- | 0.20 |
| Heptachlor | µg/L | -- | 7 | 0% | -- | -- | -- | 0.010 | -- | 0.0080 | -- | 0.010 |
| Heptachlor Epoxide | µg/L | -- | 7 | 0% | -- | -- | -- | 0.010 | -- | 0.0060 | -- | 0.010 |
| Hexachlorobenzene | µg/L | -- | 1 | 0% | -- | -- | -- | 1.0 | -- | -- | -- | 1.0 |
| Hexachlorocyclopentadiene | µg/L | -- | 4 | 0% | -- | -- | -- | 50 | -- | 50 | -- | 50 |
| m-Dichlorobenzene (1,3-DCB) | µg/L | -- | 55 | 0% | -- | -- | -- | -- | -- | 600 | -- | 600 |
| Methoxychlor | µg/L | -- | 7 | 0% | -- | -- | -- | 30 | -- | 30 | -- | 30 |
| Molinate | µg/L | -- | 5 | 0% | -- | -- | -- | 20 | -- | -- | -- | 20 |
| Naphthalene | µg/L | -- | 37 | 0% | -- | -- | -- | -- | -- | -- | 17 | 17 |
| o-Dichlorobenzene (1,2-DCB) | µg/L | -- | 55 | 0% | -- | -- | -- | -- | -- | 600 | -- | 600 |
| Pentachlorophenol | µg/L | -- | 1 | 0% | -- | -- | -- | 1.0 | -- | 0.40 | -- | 1.0 |
| Phenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | 4,200 | -- | 4,200 |
| Simazine | µg/L | -- | 8 | 0% | -- | -- | -- | 4.0 | -- | 4.0 | -- | 4.0 |
| Thiobencarb | µg/L | -- | 5 | 0% | -- | -- | -- | 70 | 1.0 | 70 | -- | 1.0 |
| 2,4,5-TP | µg/L | -- | 5 | 0% | -- | -- | -- | 50 | -- | -- | -- | 50 |
| 2,4-D | µg/L | -- | 6 | 0% | -- | -- | -- | 70 | -- | 70 | -- | 70 |
| Endothall | µg/L | -- | 3 | 0% | -- | -- | -- | 100 | -- | 580 | -- | 100 |
| Aluminum | µg/L | -- | 5 | 0% | -- | -- | -- | 1.0 | 0.20 | 0.60 | -- | 0.2 |
| benzo(a)pyrene | µg/L | -- | 2 | 0% | -- | -- | -- | 0.20 | -- | 0.0040 | -- | 0.20 |
| Aldicarb | µg/L | -- | 6 | 0% | -- | -- | -- | -- | -- | -- | 7.0 | 7.0 |
| Bentazon | µg/L | -- | 4 | 0% | -- | -- | -- | 18 | -- | 200 | -- | 18 |
| Captan | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 1.5 | 1.5 |
| Carbofuran | µg/L | -- | 6 | 0% | -- | -- | -- | 18 | -- | 1.7 | -- | 18 |
| Chloropicrin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 56 | 56 |
| Dalapon | µg/L | -- | 4 | 0% | -- | -- | -- | 200 | -- | 790 | -- | 200 |
| Dinosab | µg/L | -- | 3 | 0% | -- | -- | -- | 7.0 | -- | 14 | -- | 7.0 |
| Diphenamide | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 200 | 200 |
| Glyphosate | µg/L | -- | 6 | 0% | -- | -- | -- | 700 | -- | 1,000 | -- | 700 |
| Picloram | µg/L | -- | 4 | 0% | -- | -- | -- | 500 | -- | 500 | -- | 500 |
| Toxaphene | µg/L | -- | 7 | 0% | -- | -- | -- | 3.0 | -- | -- | -- | 3.0 |
| 1,1,1-Trichloroethane | µg/L | -- | 56 | 0% | -- | -- | -- | 200 | -- | -- | -- | 200 |
| 1,1,2,2-Tetrachloroethane | µg/L | -- | 55 | 0% | -- | -- | -- | 1.0 | -- | -- | -- | 1.0 |
| 1,1,2-Trichloroethane | µg/L | -- | 55 | 0% | -- | -- | -- | 5.0 | -- | -- | -- | 5.0 |

TABLE 3-2

Summary of Historical Water Quality Data for Well 52 (June 1985 Through May 2002)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|---------|------------------|-------------------------------|
| 1,1,2-Trichlorotrifluoroethane | µg/L | -- | 38 | 0% | -- | -- | -- | 1,200 | -- | 4,000 | -- | 1,200 |
| 1,1-Dichloroethane | µg/L | -- | 55 | 0% | -- | -- | -- | 5.0 | -- | -- | -- | 5.0 |
| 1,1-Dichloroethene | µg/L | -- | 55 | 0% | -- | -- | -- | 6.0 | -- | 10 | -- | 6.0 |
| 1,2,3-Trichloropropane | µg/L | -- | 53 | 0% | -- | -- | -- | -- | -- | -- | 0.0050 | 0.0050 |
| 1,2-Dibromo-3-Chloropropane | µg/L | -- | 8 | 0% | -- | -- | -- | 0.010 | -- | 0.0017 | -- | 0.010 |
| 1,2-Dibromoethane (EDB) | µg/L | -- | 7 | 0% | -- | -- | -- | 0.050 | -- | -- | -- | 0.050 |
| 1,2-Dichloroethene | µg/L | -- | 8 | 0% | -- | -- | -- | 10 | -- | -- | -- | 10 |
| 1,2-Dichloropropane | µg/L | -- | 55 | 0% | -- | -- | -- | 5.0 | -- | 0.50 | -- | 5.0 |
| 2-Chlorotoluene | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | 140 | 140 |
| 4-Chlorotoluene | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | 140 | 140 |
| Bromodichloromethane | µg/L | -- | 55 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| Chlorobenzene | µg/L | -- | 55 | 0% | -- | -- | -- | 70 | -- | -- | -- | 70 |
| cis-1,2-Dichloroethene | µg/L | -- | 51 | 0% | -- | -- | -- | 6.0 | -- | -- | -- | 6.0 |
| Dibromochloromethane (THM) | µg/L | -- | 55 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| Dichlorodifluoromethane | µg/L | -- | 54 | 0% | -- | -- | -- | -- | -- | -- | 1,000 | 1,000 |
| Isopropylbenzene | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | 770 | 770 |
| m,p-Xylene | µg/L | -- | 52 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- | 1,750 |
| Methyl Isobutyl Ketone (4-methyl-2-pentanone) | µg/L | -- | 19 | 0% | -- | -- | -- | -- | -- | -- | 120 | 120 |
| Methyl-t-Butyl Ether (MTBE) | µg/L | -- | 48 | 0% | -- | -- | -- | 13 | 5.0 | 13 | -- | 5 |
| n-Butylbenzene | µg/L | -- | 51 | 0% | -- | -- | -- | -- | -- | -- | 70 | 70 |
| n-Propylbenzene | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| sec-Butylbenzene | µg/L | -- | 46 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| Styrene | µg/L | -- | 52 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| tert-Butylbenzene | µg/L | -- | 51 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| Toluene | µg/L | -- | 55 | 0% | -- | -- | -- | 150 | -- | 150 | -- | 150 |
| trans-1,3-Dichloropropene | µg/L | -- | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Trichlorofluoromethane | µg/L | -- | 55 | 0% | -- | -- | -- | 150 | -- | 700 | -- | 150 |
| Vinyl Chloride | µg/L | -- | 55 | 0% | -- | -- | -- | 0.50 | -- | 0.50 | -- | 0.50 |
| Xylenes, Total | µg/L | -- | 55 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- | 1,750 |
| Aldrin | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | 0.0020 | 0.0020 |
| Beta-BHC | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | 0.025 | 0.025 |
| Delta-BHC | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | 0.025 | 0.025 |
| Dieldrin | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | 0.0020 | 0.0020 |
| Dimethoate | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | 1.0 | 1.0 |
| N-Nitrosodimethylamine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | 0.010 | 0.010 |
| Cadmium | µg/L | -- | 5 | 0% | -- | -- | -- | 0.0050 | -- | 0.00007 | -- | 0.0050 |
| Copper | µg/L | -- | 5 | 0% | -- | -- | -- | 1.3 | 1.0 | 0.17 | -- | 1.0 |
| Iron | µg/L | -- | 5 | 0% | -- | -- | -- | -- | 0.30 | -- | -- | 0.30 |
| Manganese | µg/L | -- | 5 | 0% | -- | -- | -- | -- | 0.050 | -- | -- | 0.050 |
| Mercury | µg/L | -- | 5 | 0% | -- | -- | -- | 0.0020 | -- | 0.0012 | -- | 0.0020 |
| Selenium | µg/L | -- | 5 | 0% | -- | -- | -- | 0.050 | -- | -- | -- | 0.050 |
| 2,3,7,8-TCDD | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Methyl-4,6-dinitrophenol (4,6-Dinitro-o-cresol) | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 3-Hydroxycarbofuran | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 3,3'-Dichlorobenzidine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,6-Dinitro-o-cresol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenylphenylether | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Chlorophenylphenylether | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Aldicarb sulfone | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Aldicarb sulfoxide | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Benzidine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethoxy)methane | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroethyl)ether | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| bis(2-Chloroisopropyl)ether | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromacil | µg/L | -- | 6 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Butylbenzylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Diethylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octylphthalate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | µg/L | -- | 53 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Nitrobenzene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Nitrosodipropylamine (N-Nitrosodi-N-propylamine) | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorobenzene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Prometryn | µg/L | -- | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Trifluralin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Merphos | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | µg/L | -- | 5 | 0% | -- | -- | -- | -- | 0.10 | -- | -- | 0.10 |
| Acenaphthene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 3-2

Summary of Historical Water Quality Data for Well 52 (June 1985 Through May 2002)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|--------------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| benzo(g,h,i) perylene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| benzo(a)anthracene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| benzo(b)fluoranthene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| benzo(k)fluoranthene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-c,d)pyrene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1016 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1221 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1232 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1242 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1248 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1254 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1260 | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Polychlorinated Biphenyls | µg/L | -- | 4 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDD | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDE | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDT | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Benfluralin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordane | µg/L | -- | 8 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordimeform | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlorothalonil | µg/L | -- | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| cis-Permethrin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Cyanazine | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dacthal | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Diazinon | µg/L | -- | 4 | 0% | -- | -- | -- | -- | -- | -- | 6.0 | 6.0 |
| Dicofol | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan I | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | µg/L | -- | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Fluchloralin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Napropamide | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Oryzalin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Propanide | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Propargite | mg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| s,s,s-Tributylphosphorothioate | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| trans-Permethrin | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1,1,2-Tetrachloroethane | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1-Dichloropropene | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-Trichlorobenzene | µg/L | -- | 51 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3,5-Trimethylbenzene | µg/L | -- | 51 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3-dichloropropane | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,2-Dichloropropane | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Butanone | µg/L | -- | 19 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloroethylvinylether | µg/L | -- | 33 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromobenzene | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromochloromethane | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Bromomethane | µg/L | -- | 55 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chloroethane | µg/L | -- | 55 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Chloromethane | µg/L | -- | 55 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| cis-1,3-Dichloropropene | µg/L | -- | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Dibromomethane | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| Kerosene | µg/L | -- | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| o-Xylene | µg/L | -- | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| p-isopropyltoluene | µg/L | -- | 51 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |

Shading indicates exceedence of applicable standard.

Note: The data summarized in this table includes samples from June 1985 to May 2002.

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; proposed CA Primary MCL and CA PHG are not included.

(a) The MCL is 5 pCi/L for Radium-226 and Radium-228 combined.

CA = California

MCL = maximum contaminant level

PHG = public health goal

DHS = Department of Health Services

TABLE 3-

Summary of Constituents Analyzed for in Groundwater Collected from the Ventura Production Well (January 1989 to September 2002)

TABLE 3-3
Summary of Constituents Analyzed for in Groundwater Collected from the Ventura Production Well (January 1989 to September 2002)

TABLE 3-3

Summary of Constituents Analyzed for in Groundwater Collected from the Ventura Production Well (January 1989 to September 2002)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| | | | | | | | | | | | | |
| ENDOSULFAN I | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN II | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN SULFATE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ENDOTHAL | UG/L | 0 | 2 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| ENDRIN | UG/L | 0 | 7 | 0% | -- | -- | -- | 2 | -- | 1.8 | -- | 2 |
| ENDRIN ALDEHYDE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ETHYLBENZENE | UG/L | 0 | 55 | 0% | -- | -- | -- | 300 | -- | 300 | -- | 300 |
| ETHYLENE DIBROMIDE (EDB) | UG/L | 0 | 8 | 0% | -- | -- | -- | 0.05 | -- | 0.01 | -- | 0.05 |
| ETHYL-TERT-BUTYL ETHER | UG/L | 0 | 24 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUORCHLORALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUORANTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUORENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| GLYPHOSATE | UG/L | 0 | 5 | 0% | -- | -- | -- | 700 | -- | 1000 | -- | 700 |
| HEPTACHLOR | UG/L | 0 | 6 | 0% | -- | -- | -- | 0.01 | -- | 0.008 | -- | 0.01 |
| HEPTACHLOR EPOXIDE | UG/L | 0 | 6 | 0% | -- | -- | -- | 0.01 | -- | 0.006 | -- | 0.01 |
| HEXAChLOROBENZENE | UG/L | 0 | 3 | 0% | -- | -- | -- | 1 | -- | 0.03 | -- | 1 |
| HEXAChLOROBUTADIENE | UG/L | 0 | 54 | 0% | -- | -- | -- | 50 | -- | -- | -- | 50 |
| HEXAChLOROCYCLOPENTADIENE | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | 50 | -- | -- |
| HEXAChLOROETHANE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| INDENO (1,2,3-CD) PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ISOPHORONE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ISOPROPYLBENZENE | UG/L | 0 | 53 | 0% | -- | -- | -- | -- | -- | -- | 770 | 770 |
| LEAD | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | 2 | 0.015 | 0.015 |
| LINDANE | UG/L | 0 | 7 | 0% | -- | -- | -- | 0.2 | -- | 0.032 | -- | 0.2 |
| M,P-XYLENE | UG/L | 0 | 53 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- | 1,750 |
| MANGANESE | UG/L | 0 | 7 | 0% | -- | -- | -- | -- | 50 | -- | 500 | 50 |
| MERCURY | UG/L | 0 | 5 | 0% | -- | -- | -- | 2 | -- | 1.2 | -- | -- |
| MERPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | 2 |
| METHOMYL | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHOXYCHLOR | UG/L | 0 | 6 | 0% | -- | -- | -- | 30 | -- | 30 | -- | 30 |
| METHYL ETHYL KETONE | UG/L | 0 | 25 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHYL ISOBUTYL KETONE | UG/L | 0 | 25 | 0% | -- | -- | -- | -- | -- | -- | 120 | 120 |
| METHYL-TERT-BUTYL-ETHER (MTBE) | UG/L | 0 | 57 | 0% | -- | -- | -- | -- | 5 | 13 | -- | 5 |
| METOLACHLOR | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METRIBUZIN | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| MOLINATE | UG/L | 0 | 6 | 0% | -- | -- | -- | 20 | -- | -- | -- | 20 |
| MONOCHLOROBENZENE | UG/L | 0 | 55 | 0% | -- | -- | -- | 70 | -- | 200 | -- | 70 |
| M-XYLENE | UG/L | 0 | 31 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| NAPHTHALENE | UG/L | 0 | 39 | 0% | -- | -- | -- | -- | -- | -- | 17 | 17 |
| NAPROPAIMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-BUTYLBENZENE | UG/L | 0 | 52 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| NICKEL | UG/L | 0 | 4 | 0% | -- | -- | -- | 100 | -- | 12 | -- | 100 |
| NITRITE (AS N) | UG/L | 0 | 3 | 0% | -- | -- | -- | 1000 | -- | 1 | -- | 1000 |
| NITROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-NITROSODIMETHYLAMINE (NDMA) | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 0.01 | 0.01 |
| N-NITROSODI-N-PROPYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-NITROSODIPHENYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ORYZALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| OXAMYL | UG/L | 0 | 2 | 0% | -- | -- | -- | 50 | -- | 50 | -- | 50 |
| PARAQUAT | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1016 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1221 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1232 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1242 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1248 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1254 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1260 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | UG/L | 0 | 2 | 0% | -- | -- | -- | 1 | -- | 0.4 | -- | 1 |
| PHENANTHRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 4200 | 4200 |
| PICLORAM | UG/L | 0 | 4 | 0% | -- | -- | -- | 500 | -- | 500 | -- | 500 |
| P-ISOPROPYLTOLEUENE | UG/L | 0 | 52 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| POLYCHLORINATED BIPHENYLS (TOTAL PCB'S) | UG/L | 0 | 3 | 0% | -- | -- | -- | 0.5 | -- | -- | -- | 0.5 |
| PROMETRYN | UG/L | 0 | 7 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPACHLOR | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPARGITE | MG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| P-XYLENE | UG/L | 0 | 31 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| S,S,S-TRIBUTYLPHOSPHOROTRITHIOATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| SEC-BUTYLBENZENE | UG/L | 0 | 47 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| SELENIUM | UG/L | 0 | 5 | 0% | -- | -- | -- | 50 | -- | -- | -- | 50 |
| SILVER | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | 100 | -- | -- | 100 |
| STYRENE | UG/L | 0 | 53 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| TERT-AMYL-METHYL ETHER | UG/L | 0 | 23 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYL ALCOHOL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYLBENZENE | UG/L | 0 | 51 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| THALLIUM | UG/L | 0 | 5 | 0% | -- | -- | -- | 2 | -- | 0.1 | -- | 2 |
| THIOBENCARB | UG/L | 0 | 5 | 0% | -- | -- | -- | 70 | 1 | 70 | -- | 1 |
| TOLUENE | UG/L | 0 | 55 | 0% | -- | -- | -- | 150 | -- | 150 | -- | 150 |

TABLE 3-3

Summary of Constituents Analyzed for in Groundwater Collected from the Ventura Production Well (January 1989 to September 2002)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|----------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| | | | | | | | | | | | | |
| TOXAPHENE | UG/L | 0 | 7 | 0% | -- | -- | -- | 3 | -- | 0.03 | -- | 3 |
| TRANS-1,2-DICHLOROETHYLENE | UG/L | 0 | 55 | 0% | -- | -- | -- | 10 | -- | 60 | -- | 10 |
| TRANS-1,3-DICHLOROPROPENE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TRANS-PERMETHRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TRICHLOROFLUOROMETHANE | UG/L | 0 | 55 | 0% | -- | -- | -- | 150 | -- | 700 | -- | 150 |
| TRIFLURALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| VINYL CHLORIDE | UG/L | 0 | 55 | 0% | -- | -- | -- | 0.5 | -- | 0.05 | -- | 0.5 |

Notes:

Source of Data: GeoSciences Database. Production Well monitoring data from January 1989 to September 2002.

µg/L = micrograms per liter

NTU = Nephelometric Turbidity Units

pCi/L = picocuries per liter

µg/mL = micrograms per milliliter

mg/L = milligrams per liter

pg/L = picograms per liter

1/2 of the detection limit was used for nondetected values

Shading indicates exceedence of applicable standard.

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; proposed CA Primary MCL and CA PHG are not included.

(a) The MCL is 5 pCi/L for Radium-226 and Radium-228 combined.

CA = California

MCL = maximum contaminant level

PHG = public health goal

DHS = Department of Health Services

TABLE 3-4

Summary of Constituents Analyzed for in Groundwater Collected from the Windsor Production Well (March 1994 to October 2002)

| Analyte | Units | Number | Number | Frequency | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA | CA | DHS | Applicable | |
|---------------------------------------|-------|---------------|---------------|-----------|------------------------------|------------------------------|--------------------|----------------|-------------------|-----------|-----------------|-----------------------|
| | | of Detects | of Samples | | | | | Primary MCL | Seconda ry MCL | CA PHG | Action Level | Regulatory Limit * |
| ALKALINITY (TOTAL) AS CACO3 | MG/L | 7 | 7 | 100% | 178.4 | 221.3 | 195.9 | -- | -- | -- | -- | -- |
| BORON | UG/L | 2 | 2 | 100% | 102 | 108 | 105 | -- | -- | -- | 1000 | 1000 |
| CALCIUM | MG/L | 6 | 6 | 100% | 51.4 | 182.62 | 89.1 | -- | -- | -- | -- | -- |
| CHLORIDE | MG/L | 6 | 6 | 100% | 31 | 90 | 47.4 | -- | 500 | -- | -- | 500 |
| COMBINED RA 226 + RA 228 | PCI/L | 2 | 2 | 100% | 1 | 1.9 | 1.45 | 5 | -- | -- | -- | 5 |
| FLUORIDE (TEMPERATURE DEPENDENT) | MG/L | 6 | 6 | 100% | 0.3 | 1 | 0.54 | 2 | -- | 1 | -- | 2 |
| GROSS ALPHA | PCI/L | 8 | 8 | 100% | 0.9 | 6 | 4.46 | 15 | -- | -- | -- | 15 |
| GROSS BETA | PCI/L | 4 | 4 | 100% | 2.34 | 5.37 | 3.82 | 50 | -- | -- | -- | 50 |
| HARDNESS (TOTAL) AS CACO3 | MG/L | 6 | 6 | 100% | 198 | 425 | 268 | -- | -- | -- | -- | -- |
| MAGNESIUM | MG/L | 5 | 5 | 100% | 12 | 77 | 32 | -- | -- | -- | -- | -- |
| NITRATE - NO3 | MG/L | 64 | 64 | 100% | 19 | 56 | 25.4 | 45 | -- | 45 | -- | 45 |
| POTASSIUM | MG/L | 2 | 2 | 100% | 2 | 2.5 | 2.25 | -- | -- | -- | -- | -- |
| RADIUM 226 | PCI/L | 1 | 1 | 100% | 0.05 | 0.05 | 0.05 | 5 | -- | -- | -- | 5 |
| RADIUM 228 | PCI/L | 1 | 1 | 100% | 0.12 | 0.12 | 0.12 | 5 | -- | -- | -- | 5 |
| SODIUM | MG/L | 6 | 6 | 100% | 27 | 36 | 31 | -- | -- | -- | -- | -- |
| SULFATE | MG/L | 6 | 6 | 100% | 35 | 111 | 58 | -- | 500 | -- | -- | 500 |
| TOTAL DISSOLVED SOLIDS | MG/L | 7 | 7 | 100% | 330 | 556 | 393 | -- | 1000 | -- | -- | 1000 |
| PH | UNITS | 7 | 7 | 100% | 7.1 | 7.5 | 7.43 | -- | -- | -- | -- | -- |
| TURBIDITY | NTU | 4 | 4 | 100% | 0.05 | 0.44 | 0.27 | -- | 5 | -- | -- | 5 |
| URANIUM (PCI/L) | PCI/L | 6 | 6 | 100% | 2.65 | 4 | 4.2 | 20 | -- | 0.43 | -- | 20 |
| PERCHLORATE | UG/L | 79 | 180 | 44% | 3.09 | 8.6 | 3.28 | -- | -- | 6 | 6 | 6 |
| BICARBONATE ALKALINITY | MG/L | 3 | 4 | 75% | 217.6 | 239.1 | 225.0 | -- | -- | -- | -- | -- |
| TOTAL TRIHALOMETHANES | UG/L | 58 | 79 | 73% | 0.44 | 9.8 | 2 | -- | -- | -- | -- | -- |
| CHROMIUM, HEXAVALENT | UG/L | 2 | 3 | 67% | 9 | 12.4 | 7.5 | -- | -- | -- | -- | -- |
| TRICHLOROETHYLENE | UG/L | 73 | 115 | 63% | 0.1 | 3.35 | 0.82 | 5 | -- | 0.8 | -- | 5 |
| TETRACHLOROETHYLENE | UG/L | 72 | 118 | 61% | 0.5 | 2.6 | 0.74 | 5 | -- | 0.06 | -- | 5 |
| VANADIUM | UG/L | 1 | 2 | 50% | 10 | 10 | 7.5 | -- | -- | 50 | -- | 50 |
| NICKEL | UG/L | 2 | 5 | 40% | 13 | 23 | 10 | 100 | -- | 12 | -- | 100 |
| BARIUM | UG/L | 2 | 6 | 33% | 65 | 147 | 106 | 1000 | -- | 2000 | -- | 1000 |
| CARBONATE ALKALINITY | MG/L | 1 | 3 | 33% | 0.88 | 0.88 | 0.88 | -- | -- | -- | -- | -- |
| CHLOROFORM (THM) | UG/L | 24 | 78 | 31% | 0.44 | 6.4 | 0.3 | 100 | -- | -- | -- | 100 |
| DIBROMOCHLOROMETHANE (THM) | UG/L | 12 | 68 | 18% | 0.7 | 6.47 | 0.83 | -- | -- | -- | -- | -- |
| CHROMIUM (TOTAL) | UG/L | 1 | 6 | 17% | 1.7 | 1.7 | 1.7 | 50 | -- | -- | -- | 50 |
| COPPER | UG/L | 1 | 6 | 17% | 17 | 17 | 17 | -- | 1000 | 170 | 1300 | 1000 |
| IRON | UG/L | 1 | 6 | 17% | 723 | 723 | 156 | -- | 300 | -- | -- | 300 |
| BROMODICHLORMETHANE (THM) | UG/L | 11 | 68 | 16% | 0.6 | 6.89 | 0.60 | -- | -- | -- | -- | -- |
| BROMOFORM (THM) | UG/L | 11 | 68 | 16% | 0.7 | 4.64 | 0.87 | -- | -- | -- | -- | -- |
| CHROMIUM (TOTAL CR-CRVI SCREEN) | UG/L | 1 | 7 | 14% | 1.8 | 1.8 | 1.8 | -- | -- | -- | -- | -- |
| CARBON TETRACHLORIDE | UG/L | 2 | 95 | 2% | 0.57 | 2.29 | 0.27 | 0.5 | -- | 0.1 | -- | 0.5 |
| BENZENE | UG/L | 1 | 67 | 1% | 0.6 | 0.6 | 0.25 | 1 | -- | 0.15 | -- | 1 |
| CHLOROMETHANE | UG/L | 1 | 67 | 1% | 0.69 | 0.69 | 0.26 | -- | -- | -- | -- | -- |
| TRICHLOROFLUOROMETHANE | UG/L | 1 | 67 | 1% | 0.9 | 0.9 | 0.26 | 150 | -- | 700 | -- | 150 |
| COLOR | COLOR | 0 | 3 | 0% | -- | -- | -- | -- | 15 | -- | -- | 15 |
| 1,1,1,2-TETRACHLORETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1,1-TRICHLOROETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | 200 | -- | 1,000 | -- | 200 |
| 1,1,2,2-TETRACHLOROETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | 1 | -- | 0.1 | -- | 1 |
| 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | 1200 | -- | 4000 | -- | 1200 |
| 1,1,2-TRICHLOROETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | 5 | -- | 0.2 | -- | 5 |
| 1,1-DICHLOROETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | 5 | -- | 3 | -- | 5 |
| 1,1-DICHLOROETHYLENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 6 | -- | 10 | -- | 6 |
| 1,1-DICHLOROPROPENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-TRICHLOROBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 1 | -- | -- | -- | 1 |
| 1,2,3-TRICHLOROPROpane | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | 0.005 | 0.005 |
| 1,2,4-TRICHLOROBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 5 | -- | 5 | -- | 5 |
| 1,2,4-TRIMETHYLBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | 330 | -- | 330 |
| 1,2-DICHLOROBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 600 | -- | 600 | -- | 60 |
| 1,2-DICHLOROETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | 0.5 | -- | 0.4 | -- | 0.05 |
| 1,2-DICHLOROPROPANE | UG/L | 0 | 67 | 0% | -- | -- | -- | 5 | -- | 0.5 | -- | 5 |
| 1,3,5-TRIMETHYLBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | 330 | -- | 330 |
| 1,3-DICHLOROBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | 600 | -- | 600 |
| 1,3-DICHLOROPROPANE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3-DICHLOROPROPENE (TOTAL) | UG/L | 0 | 67 | 0% | -- | -- | -- | 0.5 | -- | 0.5 | -- | 0.5 |
| 1,4-DICHLOROBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 5 | -- | 6 | -- | 5 |
| 1-PHENYLPROPANE (N-PROPYLBENZENE) | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | 26 | 26 |
| 2,2-DICHLOROPROPANE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7,8-TCDD (DIOXIN) | UG/L | 0 | 1 | 0% | -- | -- | -- | 0.00003 | -- | -- | -- | 0.00003 |
| 2,4,5-T | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-TP (SILVEX) | UG/L | 0 | 4 | 0% | -- | -- | -- | 50 | -- | 25 | -- | 50 |
| 2,4-D | UG/L | 0 | 5 | 0% | -- | -- | -- | 70 | -- | 70 | -- | 70 |
| 2-CHLOROETHYLVINYL ETHER | UG/L | 0 | 30 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLOROTOLUENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | 140 | 140 |
| 3-HYDROXYCARBOFURAN | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDD | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDT | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-CHLORTOLUENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | 140 | 140 |
| ALACHLOR | UG/L | 0 | 3 | 0% | -- | -- | -- | 2 | -- | 4 | -- | 2 |
| ALDICARB | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | 7 | 7 |
| ALDICARB SULFONE | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ALDICARB SULFOXIDE | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ALDRIN | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | 0.002 | 0.002 |
| ALPHA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ALUMINUM | UG/L | 0 | 5 | 0% | -- | -- | -- | 1000 | 200 | 600 | -- | 1000 |

TABLE 3-4

Summary of Constituents Analyzed for in Groundwater Collected from the Windsor Production Well (March 1994 to October 2002)

| Analyte | Units | Number | Number | Frequency | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA | CA | DHS | Applicable |
|---|-------|---------------|---------------|--------------|------------------------------|------------------------------|--------------------|----------------|-------------------|-----------|-----------------------|
| | | of Detects | of Samples | of Detection | | | | Primary MCL | Seconda ry MCL | CA PHG | Regulatory Limit * |
| AMMONIA (NH3-N) | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ANTIMONY | UG/L | 0 | 5 | 0% | -- | -- | -- | 6 | -- | 20 | -- |
| ARSENIC | UG/L | 0 | 6 | 0% | -- | -- | -- | 50 | -- | 0.004 | 50 |
| ATRAZINE | UG/L | 0 | 4 | 0% | -- | -- | -- | 1 | -- | 0.15 | -- |
| BENTAZON | UG/L | 0 | 3 | 0% | -- | -- | -- | 18 | -- | 200 | -- |
| BENZO (A) PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 18 |
| BERYLLIUM | UG/L | 0 | 5 | 0% | -- | -- | -- | 4 | -- | 1 | -- |
| BETA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BIS (2-CHLOROETHYL) ETHER | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BROMACIL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BROMOBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BROMOCHLOROMETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BROMOMETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BUTACHLOR | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CADMUM | UG/L | 0 | 6 | 0% | -- | -- | -- | 5 | -- | 0.07 | -- |
| CARBARYL | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | -- | 700 |
| CARBOFURAN | UG/L | 0 | 5 | 0% | -- | -- | -- | 18 | -- | 1.7 | -- |
| CHLORDANE | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.1 | -- | 0.03 | -- |
| CHLOROETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CHLOROTHALONIL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CIS-1,2-DICHLOROETHYLENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 6 | -- | 100 | -- |
| CYANIDE | UG/L | 0 | 2 | 0% | -- | -- | -- | 150 | -- | 150 | -- |
| DALAPON | UG/L | 0 | 3 | 0% | -- | -- | -- | 200 | -- | 790 | -- |
| DELTA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DI(2-ETHYLHEXYL)ADIPATE | UG/L | 0 | 1 | 0% | -- | -- | -- | 400 | -- | 200 | -- |
| DI(2-ETHYLHEXYL)PHTHALATE | UG/L | 0 | 1 | 0% | -- | -- | -- | 4 | -- | 12 | -- |
| DAZINON | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | 6 |
| DIBROMOCHLOROPROPANE (DBCP) | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DIBROMOMETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DICAMBA | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DICHLORODIFLUOROMETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | 1000 | 1000 |
| DICHLOROMETHANE | UG/L | 0 | 67 | 0% | -- | -- | -- | 5 | -- | 4 | -- |
| DIELDRIN | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | 0.002 |
| DIISOPROPYL ETHER | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DIMETHOATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 1 |
| DINOSEB | UG/L | 0 | 2 | 0% | -- | -- | -- | 7 | -- | 14 | -- |
| DIQUAT | UG/L | 0 | 6 | 0% | -- | -- | -- | 20 | -- | 15 | -- |
| DIURON | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN I | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN II | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN SULFATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ENDOTHALL | UG/L | 0 | 2 | 0% | -- | -- | -- | 100 | -- | 580 | -- |
| ENDRIN | UG/L | 0 | 5 | 0% | -- | -- | -- | 2 | -- | 1.8 | -- |
| ENDRIN ALDEHYDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ETHYLBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 300 | -- | 300 | -- |
| ETHYLENE DIBROMIDE (EDB) | UG/L | 0 | 2 | 0% | -- | -- | -- | 0.05 | -- | 0.01 | -- |
| ETHYL-TERT-BUTYL ETHER | UG/L | 0 | 24 | 0% | -- | -- | -- | -- | -- | -- | -- |
| GLYPHOSATE | UG/L | 0 | 6 | 0% | -- | -- | -- | 700 | -- | 1000 | -- |
| HEPTACHLOR | UG/L | 0 | 4 | 0% | -- | -- | -- | 0.01 | -- | 0.008 | -- |
| HEPTACHLOR EPOXIDE | UG/L | 0 | 4 | 0% | -- | -- | -- | 0.01 | -- | 0.006 | -- |
| HEXACHLOROBENZENE | UG/L | 0 | 3 | 0% | -- | -- | -- | 1 | -- | 0.03 | -- |
| HEXACHLOROBUTADIENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 50 | -- | -- | 50 |
| HEXACHLOROCYCLOPENTADIENE | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | 50 | -- |
| ISOPROPYLBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | 770 | 770 |
| LEAD | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | 2 | 0.015 |
| LINDANE | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.2 | -- | 0.032 | -- |
| M,P-XYLENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- |
| MANGANESE | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | -- | -- |
| MERCURY | UG/L | 0 | 6 | 0% | -- | -- | -- | 2 | -- | 1.2 | -- |
| METHOMYL | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- |
| METHOXYCHLOR | UG/L | 0 | 5 | 0% | -- | -- | -- | 30 | -- | 30 | -- |
| METHYL ETHYL KETONE | UG/L | 0 | 23 | 0% | -- | -- | -- | -- | -- | -- | -- |
| METHYL ISOBUTYL KETONE | UG/L | 0 | 23 | 0% | -- | -- | -- | -- | -- | -- | 120 |
| METHYL-TERT-BUTYL-ETHER (MTBE) | UG/L | 0 | 67 | 0% | -- | -- | -- | 5 | -- | 13 | -- |
| METOLACHLOR | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| METRIBUZIN | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| MOLINATE | UG/L | 0 | 2 | 0% | -- | -- | -- | 20 | -- | -- | 20 |
| MONOCHLOROBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 70 | -- | 200 | -- |
| M-XYLENE | UG/L | 0 | 31 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- |
| NAPHTHALENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | 17 |
| N-BUTYLBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | -- |
| NITRITE (AS N) | UG/L | 0 | 3 | 0% | -- | -- | -- | 1000 | -- | 1 | -- |
| OXAMYL | UG/L | 0 | 5 | 0% | -- | -- | -- | 50 | -- | 50 | -- |
| O-XYLENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- |
| PARAQUAT | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | UG/L | 0 | 2 | 0% | -- | -- | -- | 1 | -- | 0.4 | -- |
| PICLORAM | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| P-ISOPROPYLTOLEUNE | UG/L | 0 | 67 | 0% | -- | -- | -- | 500 | -- | 500 | -- |
| POLYCHLORINATED BIPHENYLS (TOTAL PCB'S) | UG/L | 0 | 3 | 0% | -- | -- | -- | 0.5 | -- | -- | 0.5 |
| PROMETRYN | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PROPACHLOR | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | -- |
| P-XYLENE | UG/L | 0 | 31 | 0% | -- | -- | -- | -- | -- | -- | -- |
| SEC-BUTYLBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | 260 | 260 |

TABLE 3-4

Summary of Constituents Analyzed for in Groundwater Collected from the Windsor Production Well (March 1994 to October 2002)

| Analyte | Units | Number | Number | Frequency | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA | CA | DHS | Applicable | |
|----------------------------|-------|---------------|---------------|-----------|------------------------------|------------------------------|--------------------|----------------|-------------------|-----------|-----------------|-----------------------|
| | | of Detects | of Samples | | | | | Primary MCL | Seconda ry MCL | CA PHG | Action Level | Regulatory Limit * |
| SELENIUM | UG/L | 0 | 6 | 0% | -- | -- | -- | 50 | -- | -- | -- | 50 |
| SILVER | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | 100 | -- | -- | 100 |
| SIMAZINE | UG/L | 0 | 4 | 0% | -- | -- | -- | 4 | -- | 4 | -- | 4 |
| STYRENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| TERT-AMYL-METHYL ETHER | UG/L | 0 | 23 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYL ALCOHOL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYLBENZENE | UG/L | 0 | 67 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| THALLIUM | UG/L | 0 | 5 | 0% | -- | -- | -- | 2 | -- | 0.1 | -- | 2 |
| THIOBENCARB | UG/L | 0 | 2 | 0% | -- | -- | -- | 70 | 1 | 70 | -- | 1 |
| TOLUENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 150 | -- | 150 | -- | 150 |
| TOXAPHENE | UG/L | 0 | 5 | 0% | -- | -- | -- | 3 | -- | 0.03 | -- | 3 |
| TRANS-1,2-DICHLOROETHYLENE | UG/L | 0 | 67 | 0% | -- | -- | -- | 10 | -- | 60 | -- | 10 |
| VINYL CHLORIDE | UG/L | 0 | 67 | 0% | -- | -- | -- | 0.5 | -- | 0.05 | -- | 0.5 |
| XYLENES (TOTAL) | UG/L | 0 | 67 | 0% | -- | -- | -- | 1750 | -- | 1800 | -- | 1750 |
| ZINC | UG/L | 0 | 6 | 0% | -- | -- | -- | 5000 | -- | -- | -- | 5000 |

Notes:

Source of Data: GeoSciences Database. Production Well monitoring data from March 1994 to October 2002.

µg/L = micrograms per liter

NTU = Nephelometric Turbidity Units

pCi/L = picocuries per liter

µg/mL = micrograms per milliliter

mg/L = milligrams per liter

pg/L = picograms per liter

1/2 of the detection limit was used for nondetected values when calculating the arithmetic mean.

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; proposed CA Primary MCL and CA PHG are not included.

(a) The MCL is 5 pCi/L for Radium-226 and Radium-228 combined.

Shading indicates exceedance of applicable standard.

CA = California

MCL = maximum contaminant level

PHG = public health goal

DHS = Department of Health Services

TABLE 3-5
Summary of Constituents Analyzed for in Groundwater Collected from the LAWC #3 (June 1991 to October 2002; May 2003 through November 2003)

TABLE 3-5
Summary of Constituents Analyzed for in Groundwater Collected from the LAWC #3 (June 1991 to October 2002; May 2003 through November 2003)

TABLE 3-5
Summary of Constituents Analyzed for in Groundwater Collected from the LAWC #3 (June 1991 to October 2002; May 2003 through November 2003)

| Analyte | Units | Number | Number | Frequency | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA | CA | DHS | Applicable | |
|---|-------|---------------|---------------|-----------------|------------------------------|------------------------------|--------------------|----------------|------------------|-----------|-----------------|-----------------------|
| | | of Detects | of Samples | of Detection | | | | Primary MCL | Secondary MCL | CA PHG | Action Level | Regulatory Limit * |
| FENAMIPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUCHLORALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUORANTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUORENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| GLYPHOSATE | UG/L | 0 | 6 | 0% | -- | -- | -- | 700 | -- | 1000 | -- | 700 |
| GUTHION | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| HEPTACHLOR | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.01 | -- | 0.008 | -- | 0.01 |
| HEPTACHLOR EPOXIDE | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.01 | -- | 0.006 | -- | 0.01 |
| HEXACHLOROBENZENE | UG/L | 0 | 5 | 0% | -- | -- | -- | 1 | -- | 0.03 | -- | 1 |
| HEXACHLOROBUTADIENE | UG/L | 0 | 13 | 0% | -- | -- | -- | 50 | -- | -- | -- | 50 |
| HEXACHLOROCYCLOPENTADIENE | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | 50 | -- | -- |
| HEXACHLOROETHANE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| INDENO (1,2,3-CD) PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ISOPHORONE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ISOPROPYLBENZENE | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | 770 | -- | 770 |
| LEAD | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | 2 | 0.015 | 0.015 |
| LINDANE | UG/L | 0 | 6 | 0% | -- | -- | 0.2 | -- | 0.032 | -- | -- | 0.2 |
| M,P-XYLENE | UG/L | 0 | 13 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| MALATHION | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| MANGANESE | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| MERCURY | UG/L | 0 | 4 | 0% | -- | -- | -- | 2 | -- | 1.2 | -- | -- |
| MERPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHAMIDOPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHOMYL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHOXYCHLOR | UG/L | 0 | 6 | 0% | -- | -- | 30 | -- | 30 | -- | -- | 30 |
| METHYL ETHYL KETONE | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHYL ISOBUTYL KETONE | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | 120 | 120 |
| METHYL-TERT-BUTYL-ETHER (MTBE) | UG/L | 0 | 15 | 0% | -- | -- | -- | 5 | 13 | -- | -- | 5 |
| METOLACHLOR | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METRIBUZIN | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| MOLINATE | UG/L | 0 | 10 | 0% | -- | -- | -- | 20 | -- | -- | -- | 20 |
| MONOCHLOROBENZENE | UG/L | 0 | 15 | 0% | -- | -- | 70 | -- | 200 | -- | -- | 70 |
| NAPHTHALENE | UG/L | 0 | 13 | 0% | -- | -- | -- | -- | -- | -- | 17 | 17 |
| NAPROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-BUTYLBENZENE | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | 260 | -- | 260 |
| NICKEL | UG/L | 0 | 4 | 0% | -- | -- | 100 | -- | 12 | -- | -- | 100 |
| NITRITE (AS N) | UG/L | 0 | 4 | 0% | -- | -- | 1000 | -- | 1 | -- | -- | 1000 |
| NITROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N,N-NITROSODIMETHYLAMINE (NDMA) | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 0.01 | 0.01 |
| N-NITROSODI-N-PROPYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-NITROSODIPHENYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ORYZALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| OXAMYL | UG/L | 0 | 4 | 0% | -- | -- | 50 | -- | 50 | -- | -- | 50 |
| O-XYLENE | UG/L | 0 | 13 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PARAQUAT | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PARATHION | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1016 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1221 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1232 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1242 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1248 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1254 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1260 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | UG/L | 0 | 5 | 0% | -- | -- | -- | 1 | -- | 0.4 | -- | 1 |
| PHENANTHRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 4200 | 4200 | -- |
| PHORATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PHOSDIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PICLORAM | UG/L | 0 | 4 | 0% | -- | -- | 500 | -- | 500 | -- | -- | 500 |
| P-ISOPROPYLTOULUENE | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| POLYCHLORINATED BIPHENYLS (TOTAL PCB'S) | UG/L | 0 | 4 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | 0.5 |
| PROMETRYN | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPARGITE | MG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPHAM | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| S,S,S-TRIBUTYLPHOSPHOROTRITHIOATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| SEC-BUTYLBENZENE | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | 260 | -- | 260 |
| SELENIUM | UG/L | 0 | 4 | 0% | -- | -- | 50 | -- | -- | -- | -- | 50 |
| SILVER | UG/L | 0 | 4 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| STYRENE | UG/L | 0 | 13 | 0% | -- | -- | 100 | -- | -- | -- | -- | 100 |
| TERT-AMYL-METHYL ETHER | UG/L | 0 | 7 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYL ALCOHOL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYLBENZENE | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | 260 | -- | 260 |
| THALLIUM | UG/L | 0 | 4 | 0% | -- | -- | 2 | -- | 0.1 | -- | -- | 2 |
| THIOBENCARB | UG/L | 0 | 10 | 0% | -- | -- | 70 | 1 | 70 | -- | -- | 1 |
| TOLUENE | UG/L | 0 | 15 | 0% | -- | -- | 150 | -- | 150 | -- | -- | 150 |
| TOXAPHENE | UG/L | 0 | 7 | 0% | -- | -- | 3 | -- | 0.03 | -- | -- | 3 |
| TRANS-1,2-DICHLOROETHYLENE | UG/L | 0 | 15 | 0% | -- | -- | 10 | -- | 60 | -- | -- | 10 |
| TRANS-1,3-DICHLOROPROPENE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TRANS-PERMETHRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TRICHLOROFLUOROMETHANE | UG/L | 0 | 15 | 0% | -- | -- | 150 | -- | 700 | -- | -- | 150 |
| VINYL CHLORIDE | UG/L | 0 | 15 | 0% | -- | -- | 0.5 | -- | 0.05 | -- | -- | 0.5 |

TABLE 3-5

Summary of Constituents Analyzed for in Groundwater Collected from the LAWC #3 (June 1991 to October 2002; May 2003 through November 2003)

| Analyte | Units | Number | Number | Frequency | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA | CA | DHS | Applicable | |
|-----------------|-------|---------------|---------------|-----------------|------------------------------|------------------------------|--------------------|----------------|------------------|-----------|-----------------|-----------------------|
| | | of Detects | of Samples | of Detection | | | | Primary MCL | Secondary MCL | CA PHG | Action Level | Regulatory Limit * |
| XYLENES (TOTAL) | UG/L | 0 | 15 | 0% | -- | -- | -- | 1750 | -- | 1800 | -- | 1750 |
| ZINC | UG/L | 0 | 5 | 0% | -- | -- | -- | 5000 | -- | -- | -- | 5000 |

Notes:

Source of Data: GeoSciences Database. Production Well monitoring data from June 1991 to October 2002; May 2003 through November 2003 for PCE, TCE, carbon tetrachloride, 1,1-DCA, and chloroform as provided in the JPL Quarterly Monitoring Reports by GEOFON.

(1) For perchlorate, data was obtained from the DHS website at <http://www.dhs.ca.gov/ps/ddwem/chemicals/perchl/monitoringupdate.htm> and includes data from June 1997 to October 2004.

µg/L = micrograms per liter

NTU = Nephelometric Turbidity Units

pCi/L = picocuries per liter

µg/mL = micrograms per milliliter

mg/L = milligrams per liter

pg/L = picograms per liter

1/2 of the detection limit was used for nondetected values when calculating the arithmetic mean

Shading indicates exceedence of applicable standard.

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; proposed CA Primary MCL and CA PHG are not included.

(a) The MCL is 5 pCi/L for Radium-226 and Radium-228 combined.

CA = California

MCL = maximum contaminant level

PHG = public health goal

DHS = Department of Health Services

TABLE 3-6

Summary of Constituents Analyzed for in Groundwater Collected from the LAWC #5 (June 1991 to October 2002; May 2003 through November 2003)

| Analyte | Units | Number | Number | Frequency | Minimum | Maximum | Arithmetic | CA | CA | DHS | Applicable |
|---------------------------------------|-------|------------|------------|--------------|----------------|----------------|------------|-------------|---------------|--------|--------------------|
| | | of Detects | of Samples | of Detection | Detected Value | Detected Value | Mean | Primary MCL | Secondary MCL | CA PHG | Regulatory Limit * |
| ALKALINITY (TOTAL) AS CACO3 | MG/L | 5 | 5 | 100% | 165.6 | 171.2 | 167.8 | -- | -- | -- | -- |
| BICARBONATE ALKALINITY | MG/L | 5 | 5 | 100% | 202 | 210 | 205.2 | -- | -- | -- | -- |
| CALCIUM | MG/L | 5 | 5 | 100% | 39.1 | 56.7 | 49.9 | -- | -- | -- | -- |
| CHLORIDE | MG/L | 5 | 5 | 100% | 11.9 | 15.7 | 13.72 | -- | 500 | -- | 500 |
| CHLOROFORM (THM) | UG/L | 14 | 14 | 100% | 1.1 | 4.6 | 2.8 | 100 | -- | -- | 100 |
| CHROMIUM, HEXAVALENT | UG/L | 3 | 3 | 100% | 1.3 | 2.5 | 1.97 | -- | -- | -- | -- |
| FLUORIDE (TEMPERATURE DEPENDENT) | MG/L | 5 | 5 | 100% | 0.6 | 0.961 | 0.78 | 2 | -- | 1 | 2 |
| GROSS ALPHA | PCI/L | 9 | 9 | 100% | 2.3 | 8.7 | 4.6 | 15 | -- | -- | 15 |
| HARDNESS (TOTAL) AS CACO3 | MG/L | 5 | 5 | 100% | 158 | 203 | 185 | -- | -- | -- | -- |
| pH | UNITS | 5 | 5 | 100% | 6.8 | 7.9 | 7.47 | -- | -- | -- | -- |
| TURBIDITY | NTU | 4 | 4 | 100% | 0.1 | 0.5 | 0.33 | -- | 5 | -- | 5 |
| MAGNESIUM | MG/L | 5 | 5 | 100% | 13 | 18 | 15.3 | -- | -- | -- | -- |
| NITRATE (AS NO3) | MG/L | 11 | 11 | 100% | 10.5 | 19.3 | 14.7 | 45 | -- | 45 | 45 |
| NITRATE + NITRITE (AS N) | UG/L | 4 | 4 | 100% | 2370 | 3499 | 2940 | -- | -- | -- | -- |
| SODIUM | MG/L | 5 | 5 | 100% | 13.4 | 34.3 | 21.7 | -- | -- | -- | -- |
| SULFATE | MG/L | 5 | 5 | 100% | 26.1 | 37.3 | 32.5 | -- | 500 | -- | 500 |
| TOTAL DISSOLVED SOLIDS | MG/L | 5 | 5 | 100% | 230 | 250 | 244 | -- | 1000 | -- | 1000 |
| TOTAL TRIHALOMETHANES | UG/L | 11 | 11 | 100% | 1.1 | 4.8 | 3.03 | -- | -- | -- | -- |
| URANIUM (PCI/L) | PCI/L | 3 | 3 | 100% | 6 | 7 | 6.3 | 20 | -- | 0.43 | 20 |
| VANADIUM | UG/L | 2 | 2 | 100% | 6.1 | 13 | 9.6 | -- | -- | 50 | 50 |
| TRICHLOROETHYLENE | UG/L | 90 | 93 | 97% | 2.4 | 57.4 | 19.63 | 5 | -- | 0.8 | 5 |
| PERCHLORATE (1) | UG/L | 94 | 112 | 84% | 2 | 15 | 5.4 | -- | -- | 6 | 6 |
| POTASSIUM | MG/L | 4 | 5 | 80% | 1.7 | 2.9 | 1.9 | -- | -- | -- | -- |
| TETRACHLOROETHYLENE | UG/L | 29 | 66 | 44% | 0.5 | 2.6 | 0.82 | 5 | -- | 0.06 | 5 |
| CARBON TETRACHLORIDE | UG/L | 25 | 65 | 38% | 0.5 | 1.9 | 0.43 | 0.5 | -- | 0.1 | 0.5 |
| ALUMINUM | UG/L | 1 | 4 | 25% | 97 | 97 | 43 | 1000 | 200 | 600 | 1000 |
| 1,1,1-TRICHLOROETHANE | UG/L | 1 | 11 | 9% | 1.2 | 1.2 | 0.34 | 200 | -- | 1,000 | 200 |
| BROMODICHLOROMETHANE (THM) | UG/L | 1 | 11 | 9% | 0.6 | 0.6 | 0.28 | -- | -- | -- | -- |
| COLOR | COLOR | 0 | 3 | 0% | -- | -- | -- | -- | 15 | -- | 15 |
| 1,1,1,2-TETRACHLORETHANE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 1,1,2,2-TETRACHLOROETHANE | UG/L | 0 | 11 | 0% | -- | -- | -- | 1 | -- | 0.1 | 1 |
| 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE | UG/L | 0 | 9 | 0% | -- | -- | -- | 1200 | -- | 4000 | 1200 |
| 1,1,2-TRICHLOROETHANE | UG/L | 0 | 11 | 0% | -- | -- | -- | 5 | -- | 0.2 | 5 |
| 1,1-DICHLOROETHANE | UG/L | 0 | 12 | 0% | -- | -- | -- | 5 | -- | 3 | 5 |
| 1,1-DICHLOROETHYLENE | UG/L | 0 | 11 | 0% | -- | -- | -- | 6 | -- | 10 | 6 |
| 1,1-DICHLOROPROPENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-TRICHLOROBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | 1 | -- | -- | 1 |
| 1,2,3-TRICHLOROPROPANE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | 0.005 |
| 1,2,4-TRICHLOROBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 5 | -- | 5 | 5 |
| 1,2,4-TRIMETHYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 330 | 330 |
| 1,2-DICHLOROBENZENE | UG/L | 0 | 12 | 0% | -- | -- | -- | 600 | -- | 600 | 60 |
| 1,2-DICHLOROETHANE | UG/L | 0 | 11 | 0% | -- | -- | -- | 0.5 | -- | 0.4 | 0.05 |
| 1,2-DICHLOROPROPANE | UG/L | 0 | 12 | 0% | -- | -- | -- | 5 | -- | 0.5 | 5 |
| 1,3,5-TRIMETHYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 330 | 330 |
| 1,3-DICHLOROBENZENE | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | 600 | 600 |
| 1,3-DICHLOROPROPANE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 1,3-DICHLOROPROPENE (TOTAL) | UG/L | 0 | 9 | 0% | -- | -- | -- | 0.5 | -- | 0.5 | 0.5 |
| 1,4-DICHLOROBENZENE | UG/L | 0 | 12 | 0% | -- | -- | -- | 5 | -- | 6 | 5 |
| 1-PHENYLPROPANE (N-PROPYLBENZENE) | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 26 | 26 |
| 2,2-DICHLOROPROPANE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-TP (SILVEX) | UG/L | 0 | 5 | 0% | -- | -- | -- | 50 | -- | 25 | 50 |
| 2,4,6-TRICHLOROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | UG/L | 0 | 7 | 0% | -- | -- | -- | 70 | -- | 70 | 70 |
| 2,4-DICHLOROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DIMETHYLPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 100 | 100 |
| 2,4-DINITROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DINITROTOLUENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2,6-DINITROTOLUENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLOROETHYLVINYL ETHER | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLORONAPHTHALENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLOROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLOROTOLUENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 140 | 140 |
| 2-METHYL-4,6-DINITROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 2-NITROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 3,3-DICHLOROBENZIDINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDD | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDT | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 4-BROMOPHENYL PHENYL ETHER | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 4-CHLORO-3-METHYLPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 4-CHLOROPHENYL PHENYL ETHER | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| 4-CHLOROTOLUENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 140 | 140 |
| 4-NITROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ACENAPHTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ACENAPHTHYLENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ACEPHATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ALACHLOR | UG/L | 0 | 8 | 0% | -- | -- | -- | 2 | -- | 4 | 2 |
| ALDICARB | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 7 | 7 |
| ALDRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ALPHA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 0.002 | 0.002 |
| ANTHRACENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ANTIMONY | UG/L | 0 | 4 | 0% | -- | -- | -- | 6 | -- | 20 | 6 |
| ARSENIC | UG/L | 0 | 4 | 0% | -- | -- | -- | 50 | -- | 0.004 | 50 |

TABLE 3-6

Summary of Constituents Analyzed for in Groundwater Collected from the LAWC #5 (June 1991 to October 2002; May 2003 through November 2003)

| Analyte | Units | Number | Number | Frequency | Minimum | Maximum | Arithmetic | CA | CA | DHS | Applicable |
|------------------------------|-------|------------|------------|--------------|----------------|----------------|------------|-------------|---------------|--------|--------------------|
| | | of Detects | of Samples | of Detection | Detected Value | Detected Value | Mean | Primary MCL | Secondary MCL | CA PHG | Regulatory Limit * |
| ATRAZINE | UG/L | 0 | 8 | 0% | -- | -- | -- | 1 | -- | 0.15 | -- |
| BARIUM | UG/L | 0 | 4 | 0% | -- | -- | -- | 1000 | -- | 2000 | -- |
| BENFLURALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BENOMYL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BENTAZON | UG/L | 0 | 4 | 0% | -- | -- | -- | 18 | -- | 200 | -- |
| BENZENE | UG/L | 0 | 11 | 0% | -- | -- | -- | 1 | -- | 0.15 | -- |
| BENZIDINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BENZO (A) ANTHRACENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BENZO (A) PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BENZO (B) FLUORANTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BENZO (GHI) PERYLENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BENZO (K) FLUORANTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BENZYL BUTYL PHTHALATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BERYLLIUM | UG/L | 0 | 4 | 0% | -- | -- | -- | 4 | -- | 1 | -- |
| BETA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BIS (2-CHLOROETHoxy) METHANE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BIS (2-CHLOROETHYL) ETHER | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BORON | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | 1000 | 1000 |
| BROMACIL | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BROMOBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BROMOCHLOROMETHANE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BROMOFORM (THM) | UG/L | 0 | 11 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BROMOMETHANE | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | -- | -- |
| BUTACHLOR | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CADMUM | UG/L | 0 | 4 | 0% | -- | -- | -- | 5 | -- | 0.07 | -- |
| CAPTAN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 1.5 |
| CARBARYL | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | 700 |
| CARBOFURAN | UG/L | 0 | 5 | 0% | -- | -- | -- | 18 | -- | 1.7 | -- |
| CARBONATE ALKALINITY | MG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CHLORDANE | UG/L | 0 | 7 | 0% | -- | -- | -- | 0.1 | -- | 0.03 | -- |
| CHLORDIMEFORM | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CHLOROETHANE | UG/L | 0 | 11 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CHLOROMETHANE | UG/L | 0 | 11 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CHLOROPICRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 56 |
| CHLOROPROPHAM | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CHLOROTHALONIL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CHLORPYRIFOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CHROMIUM (TOTAL) | UG/L | 0 | 4 | 0% | -- | -- | -- | 50 | -- | -- | 50 |
| CHRYSENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CIS-1,2-DICHLOROETHYLENE | UG/L | 0 | 9 | 0% | -- | -- | -- | 6 | -- | 100 | -- |
| CIS-1,3-DICHLOROPROPENE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CIS-PERMETHRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| COPPER | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | 1000 | 170 | 1300 |
| CYANAZINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| CYANIDE | UG/L | 0 | 4 | 0% | -- | -- | -- | 150 | -- | 150 | -- |
| DACTHAL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DALAPON | UG/L | 0 | 4 | 0% | -- | -- | -- | 200 | -- | 790 | -- |
| DELTA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DEMETON | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DI(2-ETHYLHEXYL)ADIPATE | UG/L | 0 | 2 | 0% | -- | -- | -- | 400 | -- | 200 | -- |
| DI(2-ETHYLHEXYL)PHTHALATE | UG/L | 0 | 3 | 0% | -- | -- | -- | 4 | -- | 12 | -- |
| DIAZINON | UG/L | 0 | 7 | 0% | -- | -- | -- | -- | -- | -- | 6 |
| DIBENZO (A,H) ANTRACENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DIBROMOCHLOROMETHANE (THM) | UG/L | 0 | 11 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DIBROMOCHLOROPROPANE (DBCP) | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DIBROMOMETHANE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DICHLORODIFLUOROMETHANE | UG/L | 0 | 12 | 0% | -- | -- | -- | -- | -- | -- | 1000 |
| DICHLOROMETHANE | UG/L | 0 | 11 | 0% | -- | -- | -- | 5 | -- | 4 | -- |
| DICOFOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DIELDRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 0.002 | 0.002 |
| DIETHYL PHTHALATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DIMETHOATE | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | 1 |
| DIMETHYL PHTHALATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DI-N-BUTYLPHthalate | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DI-N-OCTYLPHthalate | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DINOSEB | UG/L | 0 | 5 | 0% | -- | -- | -- | 7 | -- | 14 | -- |
| DIPHENAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 200 |
| DIQUAT | UG/L | 0 | 5 | 0% | -- | -- | -- | 20 | -- | 15 | -- |
| DISULFOTON | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DIURON | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DNOC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| DYLOX | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN I | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN II | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN SULFATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ENDOTHALL | UG/L | 0 | 1 | 0% | -- | -- | -- | 100 | -- | 580 | -- |
| ENDRIN | UG/L | 0 | 6 | 0% | -- | -- | -- | 2 | -- | 1.8 | -- |
| ENDRIN ALDEHYDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| EPTC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ETHION | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ETHYLBENZENE | UG/L | 0 | 11 | 0% | -- | -- | -- | 300 | -- | 300 | -- |
| ETHYLENE DIBROMIDE (EDB) | UG/L | 0 | 7 | 0% | -- | -- | -- | 0.05 | -- | 0.01 | -- |
| ETHYL-TERT-BUTYL ETHER | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | -- | -- |

TABLE 3-6

Summary of Constituents Analyzed for in Groundwater Collected from the LAWC #5 (June 1991 to October 2002; May 2003 through November 2003)

| Analyte | Units | Number | Number | Frequency | Minimum | Maximum | Arithmetic | CA | CA | DHS | Applicable |
|---|-------|------------|------------|--------------|----------------|----------------|------------|-------------|---------------|--------|--------------------|
| | | of Detects | of Samples | of Detection | Detected Value | Detected Value | Mean | Primary MCL | Secondary MCL | CA PHG | Regulatory Limit * |
| FENAMIPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| FLUCHLORALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| FLUORANTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| FLUORENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| GLYPHOSATE | UG/L | 0 | 6 | 0% | -- | -- | -- | 700 | -- | 1000 | -- |
| GUTHION | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| HEPTACHLOR | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.01 | -- | 0.008 | -- |
| HEPTACHLOR EPOXIDE | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.01 | -- | 0.006 | -- |
| HEXACHLOROBENZENE | UG/L | 0 | 5 | 0% | -- | -- | -- | 1 | -- | 0.03 | -- |
| HEXACHLOROBUTADIENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 50 | -- | -- | 50 |
| HEXACHLOROCYCLOPENTADIENE | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | 50 | -- |
| HEXACHLOROETHANE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| INDENO (1,2,3-CD) PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| IRON | UG/L | 0 | 5 | 0% | -- | -- | -- | 300 | -- | -- | 300 |
| ISOPHORONE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ISOPROPYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 770 | 770 |
| LEAD | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | 2 | 0.015 | 0.015 |
| LINDANE | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.2 | -- | 0.032 | -- |
| M,P-XYLENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| MALATHION | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| MANGANESE | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- |
| MERCURY | UG/L | 0 | 4 | 0% | -- | -- | -- | 2 | -- | 1.2 | -- |
| MERPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 2 |
| METHAMIDOPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| METHOMYL | UG/L | 0 | 1 | 0% | -- | -- | -- | 30 | -- | 30 | -- |
| METHOXYCHLOR | UG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- |
| METHYL ETHYL KETONE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| METHYL ISOBUTYL KETONE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | 120 | 120 |
| METHYL-TERT-BUTYL-ETHER (MTBE) | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | 5 | 13 | -- |
| METOLACHLOR | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| METRIBUZIN | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| MOLINATE | UG/L | 0 | 9 | 0% | -- | -- | -- | 20 | -- | -- | 20 |
| MONOCHLOROBENZENE | UG/L | 0 | 11 | 0% | -- | -- | -- | 70 | -- | 200 | -- |
| NAPHTHALENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | 17 | 17 |
| NAPROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| N-BUTYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 260 | 260 |
| NICKEL | UG/L | 0 | 4 | 0% | -- | -- | -- | 100 | -- | 12 | -- |
| NITRITE (AS N) | UG/L | 0 | 4 | 0% | -- | -- | -- | 1000 | -- | 1 | -- |
| NITROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| N-NITROSODIMETHYLAMINE (NDMA) | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 0.01 |
| N-NITROSODI-N-PROPYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| N-NITROSODIPHENYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| ORYZALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| OXAMYL | UG/L | 0 | 4 | 0% | -- | -- | -- | 50 | -- | 50 | -- |
| O-XYLENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PARAQUAT | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PARATHION | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PCB-1016 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PCB-1221 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PCB-1232 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PCB-1242 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PCB-1248 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PCB-1254 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PCB-1260 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | UG/L | 0 | 5 | 0% | -- | -- | -- | 1 | -- | 0.4 | -- |
| PHENANTHRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 4200 | 4200 |
| PHORATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PHOSDIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PICLORAM | UG/L | 0 | 4 | 0% | -- | -- | -- | 500 | -- | 500 | -- |
| P-ISOPOROPYLtoluene | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- |
| POLYCHLORINATED BIPHENYLS (TOTAL PCB'S) | UG/L | 0 | 4 | 0% | -- | -- | -- | 0.5 | -- | -- | 0.5 |
| PROMETRYN | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PROPARGITE | MG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PROPHAM | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| RADIUM 226 | PCI/L | 0 | 1 | 0% | -- | -- | -- | 5 | -- | -- | 5 |
| RADIUM 228 | PCI/L | 0 | 1 | 0% | -- | -- | -- | 5 | -- | -- | 5 |
| S,S,S-TRIBUTYLPHOSPHOROTRITHIOATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| SEC-BUTYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 260 | 260 |
| SELENIUM | UG/L | 0 | 4 | 0% | -- | -- | -- | 50 | -- | -- | 50 |
| SILVER | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | 100 | -- | 100 |
| SIMAZINE | UG/L | 0 | 8 | 0% | -- | -- | -- | 4 | -- | 4 | -- |
| STYRENE | UG/L | 0 | 9 | 0% | -- | -- | -- | 100 | -- | -- | 100 |
| TERT-AMYL-METHYL ETHER | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYL ALCOHOL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | 260 | 260 |
| THALLIUM | UG/L | 0 | 4 | 0% | -- | -- | -- | 2 | -- | 0.1 | -- |
| THIOPENCARB | UG/L | 0 | 8 | 0% | -- | -- | -- | 70 | 1 | 70 | -- |
| TOLUENE | UG/L | 0 | 11 | 0% | -- | -- | -- | 150 | -- | 150 | -- |
| TOXAPHENE | UG/L | 0 | 6 | 0% | -- | -- | -- | 3 | -- | 0.03 | -- |

TABLE 3-6

Summary of Constituents Analyzed for in Groundwater Collected from the LAWC #5 (June 1991 to October 2002; May 2003 through November 2003)

| Analyte | Units | Number | Number | Frequency | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA | CA | DHS | Applicable |
|----------------------------|-------|---------------|---------------|-----------------|------------------------------|------------------------------|--------------------|----------------|------------------|-----------|-----------------------|
| | | of Detects | of Samples | of Detection | | | | Primary MCL | Secondary MCL | CA PHG | Regulatory Limit * |
| TRANS-1,2-DICHLOROETHYLENE | UG/L | 0 | 11 | 0% | -- | -- | -- | 10 | -- | 60 | -- |
| TRANS-1,3-DICHLOROPROPENE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- |
| TRANS-PERMETHRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- |
| TRICHLOROFLUOROMETHANE | UG/L | 0 | 11 | 0% | -- | -- | -- | 150 | -- | 700 | -- |
| VINYL CHLORIDE | UG/L | 0 | 11 | 0% | -- | -- | -- | 0.5 | -- | 0.05 | -- |
| XYLENES (TOTAL) | UG/L | 0 | 11 | 0% | -- | -- | -- | 1750 | -- | 1800 | -- |
| ZINC | UG/L | 0 | 5 | 0% | -- | -- | -- | 5000 | -- | -- | 5000 |

Notes:

Source of Data: GeoSciences Database. Production Well monitoring data from June 1991 to October 2002; May 2003 through November 2003 for PCE, TCE, carbon tetrachloride, 1,1-DCA, and chloroform as provided in the JPL Quarterly Monitoring Reports by GEOFON.

(1) For perchlorate, data was obtained from the DHS website at <http://www.dhs.ca.gov/ps/ddwem/chemicals/perchl/monitoringupdate.htm> and includes data from June 1997 to October 2004.

µg/L = micrograms per liter

NTU = Nephelometric Turbidity Units

pCi/L = picocuries per liter

µg/mL = micrograms per milliliter

mg/L = milligrams per liter

pg/L = picograms per liter

1/2 of the detection limit was used for nondetected values when calculating the arithmetic mean.

Shading indicates exceedence of applicable standard.

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; proposed CA Primary MCL and CA PHG are not included.

(a) The MCL is 5 pCi/L for Radium-226 and Radium-228 combined.

CA = California

MCL = maximum contaminant level

PHG = public health goal

DHS = Department of Health Services

TABLE 3-7
Summary of Constituents Analyzed in Groundwater Collected from the Rubio Cañon Well #4

TABLE 3-7
Summary of Constituents Analyzed in Groundwater Collected from the Rubio Cañon Well #4

TABLE 3-7
Summary of Constituents Analyzed in Groundwater Collected from the Rubio Cañon Well #4

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| HYDROXIDE ALKALINITY | MG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| INDENO (1,2,3-CD) PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ISOPHORONE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ISOPROPYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | 770 | 770 |
| KEROSENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| LEAD | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | 2 | 15 | 15 | |
| LINDANE | UG/L | 0 | 9 | 0% | -- | -- | 0.2 | -- | 0.032 | -- | 0.2 | |
| M,P-XYLENE | UG/L | 0 | 9 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- | 1,750 |
| MERPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHOMYL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHOXYCHLOR | UG/L | 0 | 8 | 0% | -- | -- | 30 | -- | 30 | -- | -- | 30 |
| METHYL ETHYL KETONE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METHYL ISOBUTYL KETONE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | 120 | 120 |
| METHYL-TERT-BUTYL-ETHER (MTBE) | UG/L | 0 | 8 | 0% | -- | -- | 13 | 5 | 13 | -- | -- | -- |
| METOLACHLOR | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| METRIBUZIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| MOLINATE | UG/L | 0 | 9 | 0% | -- | -- | 200 | -- | -- | -- | -- | 200 |
| MONOCHLOROBENZENE | UG/L | 0 | 11 | 0% | -- | -- | 70 | -- | 200 | -- | -- | 70 |
| NAPHTHALENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 170 | 170 |
| NAPROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-BUTYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| NICKEL | UG/L | 0 | 3 | 0% | -- | -- | 100 | -- | 12 | -- | -- | 100 |
| NITRITE (AS N) | UG/L | 0 | 3 | 0% | -- | -- | 1,000 | -- | 1,000 | -- | -- | 1,000 |
| NITROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-NITROSODIMETHYLAMINE (NDMA) | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 0.01 | 0.01 |
| N-NITROSODI-N-PROPYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-NITROSODIPHENYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ORYZALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| OXAMYL | UG/L | 0 | 2 | 0% | -- | -- | 50 | -- | 50 | -- | -- | 50 |
| O-XYLENE | UG/L | 0 | 9 | 0% | -- | -- | 1,750 | -- | 1,800 | -- | -- | 1,750 |
| PCB-1016 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1221 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1232 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1242 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1248 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1254 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PCB-1260 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | UG/L | 0 | 6 | 0% | -- | -- | 1 | -- | 0.4 | -- | -- | 1 |
| PHENANTHRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 4,200 | 4,200 |
| PICLORAM | UG/L | 0 | 5 | 0% | -- | -- | 500 | -- | 500 | -- | -- | 500 |
| P-ISOPROPYLTOLUENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| POLYCHLORINATED BIPHENYLS (TOTAL PCB'S) | UG/L | 0 | 5 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | 0.5 |
| PROMETRYN | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPACHLOR | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PROPARGITE | MG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| RADIUM 228 | PCI/L | 0 | 7 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| S,S,S-TRIBUTYLPHOSPHOROTRITHIOATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| SEC-BUTYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| STYRENE | UG/L | 0 | 9 | 0% | -- | -- | 100 | -- | -- | -- | -- | 100 |
| TERT-AMYL-METHYL ETHER | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYL ALCOHOL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | 12 | 12 |
| TERT-BUTYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| TETRACHLOROETHYLENE | UG/L | 0 | 11 | 0% | -- | -- | 5 | -- | 0.06 | -- | -- | 5 |
| THALLIUM | UG/L | 0 | 3 | 0% | -- | -- | 2 | -- | 0.1 | -- | -- | 2 |
| THIOBENCARB | UG/L | 0 | 10 | 0% | -- | -- | 70 | 1 | 70 | -- | -- | 70 |
| TOLUENE | UG/L | 0 | 11 | 0% | -- | -- | 150 | -- | 150 | -- | -- | 150 |
| TOXAPHENE | UG/L | 0 | 9 | 0% | -- | -- | 3 | -- | 0.03 | -- | -- | 3 |
| TRANS-1,2-DICHLOROETHYLENE | UG/L | 0 | 11 | 0% | -- | -- | 10 | -- | 60 | -- | -- | 10 |
| TRANS-1,3-DICHLOROPROPENE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TRANS-PERMETHRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TRICHLOROETHYLENE | UG/L | 0 | 12 | 0% | -- | -- | 5 | -- | 0.8 | -- | -- | 5 |
| TRICHLOROFLUOROMETHANE | UG/L | 0 | 11 | 0% | -- | -- | 150 | -- | 700 | -- | -- | 150 |
| VINYL CHLORIDE | UG/L | 0 | 11 | 0% | -- | -- | 0.5 | -- | 0.05 | -- | -- | 0.5 |
| XYLENES (TOTAL) | UG/L | 0 | 11 | 0% | -- | -- | 1,750 | -- | 1,800 | -- | -- | 1,750 |

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; CA PHG is not included.

Shading indicates exceedence of applicable standard.

CA = California

MCL = maximum contaminant level

PHG = public health goal

DHS = Department of Health Services

BNA = base neutral acid

HERB = herbicide

MET = metal

PAH = polycyclic aromatic hydrocarbon

PCB = polychlorinated biphenyl

PEST = pesticide

RAD = radiation

VOC = volatile organic compound

Bolding of value and qualifier means that the detection limit exceeds a CA Primary/Secondary MCL, or DHS Action Level.

TABLE 3-8
Summary of Constituents Analyzed in Groundwater Collected from the Rubio Cañon Well #7

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---------------------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| AGGRESSIVE INDEX (CORROSION) | NA | 3 | 3 | 100% | 11.9 | 12.13 | 12.05 | -- | Non-Corrosive | -- | -- | Non-Corrosive |
| ALKALINITY (TOTAL) AS CACO3 | MG/L | 5 | 5 | 100% | 165 | 190.8 | 178.3 | -- | -- | -- | -- | -- |
| BICARBONATE ALKALINITY | MG/L | 5 | 5 | 100% | 200 | 232.8 | 216.9 | -- | -- | -- | -- | -- |
| CALCIUM | MG/L | 5 | 5 | 100% | 35.7 | 57 | 46.84 | -- | -- | -- | -- | -- |
| CHLORIDE | MG/L | 4 | 4 | 100% | 17.9 | 32 | 22 | -- | 250 | -- | -- | 250 |
| CHROMIUM, HEXAVALENT | UG/L | 2 | 2 | 100% | 1.4 | 2.2 | 1.8 | -- | -- | -- | -- | -- |
| FLUORIDE (TEMPERATURE DEPENDENT) | MG/L | 46 | 46 | 100% | 0.322 | 23.3 | 1.09 | 2 | -- | 1 | -- | 2 |
| GROSS ALPHA | PCI/L | 12 | 12 | 100% | 3.6 | 13.1 | 6.72 | 15 | -- | -- | -- | 15 |
| HARDNESS (TOTAL) AS CACO3 | MG/L | 5 | 5 | 100% | 140.8 | 210 | 177.56 | -- | -- | -- | -- | -- |
| MAGNESIUM | MG/L | 5 | 5 | 100% | 9.2 | 24.1 | 15.34 | -- | -- | -- | -- | -- |
| NITRATE (AS NO3) | MG/L | 56 | 56 | 100% | 7.4 | 31.3 | 20.62 | 45 | -- | 45 | -- | 45 |
| NITRATE + NITRITE (AS N) | UG/L | 4 | 4 | 100% | 4582 | 2302 | 3464 | 10,000 | -- | 10,000 | -- | 10,000 |
| NITRATE + NITRITE (NO3-N) | UG/L | 1 | 1 | 100% | 4582 | 4582 | 4582 | -- | -- | -- | -- | -- |
| ODOR THRESHOLD @ 60 C | | 29 | 29 | 100% | 1 | 1 | 1 | -- | 3 | -- | -- | 3 |
| PH, LABORATORY | NA | 5 | 5 | 100% | 7.5 | 7.9 | 7.69 | -- | -- | -- | -- | -- |
| SODIUM | MG/L | 5 | 5 | 100% | 17.2 | 48.3 | 35.26 | -- | -- | -- | -- | 900 |
| SPECIFIC CONDUCTANCE | US | 5 | 5 | 100% | 480 | 540 | 501.4 | -- | 900 | -- | -- | 900 |
| SULFATE | MG/L | 5 | 5 | 100% | 19.7 | 44.3 | 33.26 | -- | 250 | -- | -- | 250 |
| TOTAL DISSOLVED SOLIDS | MG/L | 5 | 5 | 100% | 259 | 300 | 276.18 | -- | 500 | -- | -- | 500 |
| TURBIDITY | NTU | 29 | 29 | 100% | 0.1 | 1.2 | 0.22 | -- | 5 | -- | -- | 5 |
| URANIUM (PCI/L) | PCI/L | 4 | 4 | 100% | 5 | 8.9 | 7.33 | 20 | -- | 0.43 | -- | 20 |
| VANADIUM | UG/L | 3 | 3 | 100% | 3 | 7.2 | 4.93 | -- | -- | -- | 50 | 50 |
| POTASSIUM | MG/L | 4 | 5 | 80% | 1.3 | 2.2 | 1.73 | -- | -- | -- | -- | -- |
| BORON | UG/L | 2 | 3 | 67% | 160 | 180 | 130 | -- | -- | -- | 1,000 | 1,000 |
| CHLOROFORM (THM) | UG/L | 5 | 10 | 50% | 0.5 | 1.3 | 0.59 | 100 | -- | -- | -- | 100 |
| TOTAL TRIHALOMETHANES | UG/L | 5 | 10 | 50% | 0.5 | 1.3 | 0.59 | -- | -- | -- | -- | -- |
| ARSENIC | UG/L | 2 | 5 | 40% | 1.0 | 2.0 | 1.2 | 50 | -- | 0.004 | -- | 50 |
| ALUMINUM | UG/L | 1 | 4 | 25% | 98 | 98 | 43.25 | 1,000 | 200 | 600 | -- | 1,000 |
| BARIUM | UG/L | 1 | 5 | 20% | 33.0 | 33.0 | 46.6 | 1,000 | -- | 2,000 | -- | 1,000 |
| CADMUM | UG/L | 1 | 5 | 20% | 3.0 | 3.0 | 1.0 | 5 | -- | 0.07 | -- | 5 |
| CARBONATE ALKALINITY | MG/L | 1 | 5 | 20% | 0.777 | 0.777 | 0.5554 | -- | -- | -- | -- | -- |
| CHROMIUM (TOTAL) | UG/L | 1 | 5 | 20% | 29 | 29 | 9.8 | 50 | -- | -- | -- | 50 |
| COPPER | UG/L | 1 | 5 | 20% | 7 | 7 | 21.4 | -- | 1,000 | 170 | 1,300 | 1,000 |
| IRON | UG/L | 1 | 5 | 20% | 30 | 30 | 46 | -- | 300 | -- | -- | 300 |
| LEAD | UG/L | 1 | 5 | 20% | 2 | 2 | 2.4 | -- | -- | 2 | 15 | 15 |
| MANGANESE | UG/L | 1 | 5 | 20% | 12 | 12 | 10.4 | -- | 50 | -- | 500 | 50 |
| MERCURY | UG/L | 1 | 5 | 20% | 0.2 | 0.2 | 0.44 | 2 | -- | 1.2 | -- | 2 |
| SELENIUM | UG/L | 1 | 5 | 20% | 1.0 | 1.0 | 2.2 | 50 | -- | -- | -- | 50 |
| SILVER | UG/L | 1 | 5 | 20% | 5 | 5 | 5 | -- | 100 | -- | -- | 100 |
| ZINC | UG/L | 1 | 5 | 20% | 7 | 7 | 21.4 | -- | 5,000 | -- | -- | 5,000 |
| COMBINE RA 226 + RA 228 | PCI/L | 1 | 6 | 17% | 0.16 | 0.16 | 0.8668 | 5 | -- | -- | -- | 5 |
| TRICHLOROETHYLENE | UG/L | 9 | 61 | 15% | 0.6 | 3.4 | 0.41 | 5 | -- | 0.8 | -- | 5 |
| PERCHLORATE | UG/L | 1 | 13 | 8% | 4 | 4 | 2.2 | -- | -- | 6 | 6 | 6 |
| 1,1,1,2-TETRACHLOROETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1,1-TRICHLOROETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | 200 | -- | 1,000 | -- | 200 |
| 1,1,2,2-TETRACHLOROETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | 1 | -- | 0.1 | -- | 1 |
| 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | 1,200 | -- | 4,000 | -- | 1,200 |
| 1,1,2-TRICHLOROETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | 5 | -- | 0.2 | -- | 5 |
| 1,1-DICHLOROETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | 5 | -- | 3 | -- | 5 |
| 1,1-DICHLOROETHYLENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 6 | -- | 10 | -- | 6 |
| 1,1-DICHLOROPROPENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-TRICHLOROBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-TRICHLOROPROPANE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | 0.005 | 0.005 |
| 1,2,4-TRICHLOROBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 5 | -- | 5 | -- | -- |
| 1,2,4-TRIMETHYLBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 330 | 330 |
| 1,2-DICHLOROBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 600 | -- | 600 | -- | 600 |
| 1,2-DICHLOROETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | 0.5 | -- | 0.4 | -- | 0.5 |
| 1,2-DICHLOROPROPANE | UG/L | 0 | 10 | 0% | -- | -- | -- | 5 | -- | 0.5 | -- | 5 |
| 1,3,5-TRIMETHYLBENZENE | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | 330 | 330 |
| 1,3-DICHLOROBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 600 | 600 |
| 1,3-DICHLOROPROPANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3-DICHLOROPROPENE (TOTAL) | UG/L | 0 | 11 | 0% | -- | -- | -- | 0.5 | -- | 0.2 | -- | 0.5 |
| 1,4-DICHLOROBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 5 | -- | 6 | -- | 5 |
| 1-PHENYLPROPANE (N-PROPYLBENZENE) | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| 2,2-DICHLOROPROPANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-TP (SILVEX) | UG/L | 0 | 5 | 0% | -- | -- | -- | 50 | -- | 25 | -- | 50 |
| 2,4-D | UG/L | 0 | 5 | 0% | -- | -- | -- | 70 | -- | 70 | -- | 70 |
| 2-CHLOROETHYL VINYL ETHER | UG/L | 0 | 9 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLOROTOLUENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 140 | 140 |
| 4-CHLOROTOLUENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 140 | 140 |
| ALACHLOR | UG/L | 0 | 5 | 0% | -- | -- | -- | 2 | -- | 4 | -- | 2 |
| ANTIMONY | UG/L | 0 | 4 | 0% | -- | -- | -- | 6 | -- | 20 | -- | 6 |
| ATRAZINE | UG/L | 0 | 10 | 0% | -- | -- | -- | 1.0 | -- | 0.15 | -- | 1 |
| BENTAZON | UG/L | 0 | 4 | 0% | -- | -- | -- | 18 | -- | 200 | -- | 18 |
| BENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 1 | -- | 0.15 | -- | 1 |
| BENZO (A) PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | 0.2 | -- | 0.004 | -- | 0.2 |
| BERYLLIUM | UG/L | 0 | 4 | 0% | -- | -- | -- | 4 | -- | 1 | -- | 4 |
| BROMACIL | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BROMOBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BROMOCHLOROMETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BROMODICLORMETHANE (THM) | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BROMOFORM (THM) | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BROMOMETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CARBARYL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 700 | 700 |
| CARBOFURAN | UG/L | 0 | 2 | 0% | -- | -- | -- | 18 | -- | 1.7 | -- | 18 |

TABLE 3-8
Summary of Constituents Analyzed in Groundwater Collected from the Rubio Cañon Well #7

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| CARBON TETRACHLORIDE | UG/L | 0 | 10 | 0% | -- | -- | -- | 0.5 | -- | 0.1 | -- | 0.5 |
| CHLORDANE | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.1 | -- | 0.03 | -- | 0.1 |
| CHLOROETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CHLOROMETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CHLOROTHALONIL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CIS-1,2-DICHLOROETHYLENE | UG/L | 0 | 11 | 0% | -- | -- | -- | 6 | -- | 100 | -- | 6 |
| COLOR | UNITS | 0 | 29 | 0% | -- | -- | -- | -- | 15 | -- | -- | 15 |
| CYANIDE | UG/L | 0 | 4 | 0% | -- | -- | -- | 150 | -- | 150 | -- | 150 |
| DALAPON | UG/L | 0 | 5 | 0% | -- | -- | -- | 200 | -- | 790 | -- | 200 |
| DI(2-ETHYLHEXYL)ADIPATE | UG/L | 0 | 1 | 0% | -- | -- | -- | 400 | -- | 200 | -- | 400 |
| DI(2-ETHYLHEXYL)PHTHALATE | UG/L | 0 | 2 | 0% | -- | -- | -- | 4 | -- | 12 | -- | 4 |
| DAZINON | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | 6 | 6 |
| DIBROMOCHLOROMETHANE (THM) | UG/L | 0 | 10 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| DIBROMOCHLOROPROpane (DBCP) | UG/L | 0 | 14 | 0% | -- | -- | -- | 0.2 | -- | 0.0017 | -- | 0.2 |
| DIBROMOMETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DICHLORODIFLUOROMETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 1,000 | 1,000 |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | UG/L | 0 | 10 | 0% | -- | -- | -- | 5 | -- | 4 | -- | 5 |
| DINOSEB | UG/L | 0 | 5 | 0% | -- | -- | -- | 7 | -- | 14 | -- | 7 |
| DIURON | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ENDRIN | UG/L | 0 | 5 | 0% | -- | -- | -- | 2 | -- | 1.8 | -- | 2 |
| ETHYLBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 300 | -- | 300 | -- | 300 |
| ETHYLENE DIBROMIDE (EDB) | UG/L | 0 | 10 | 0% | -- | -- | -- | 0.05 | -- | 0.01 | -- | 0.05 |
| ETHYL-TERT-BUTYL ETHER | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FOAMING AGENTS (MBAS) | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | 500 | -- | -- | 500 |
| GLYPHOSATE | UG/L | 0 | 5 | 0% | -- | -- | -- | 700 | -- | 1,000 | -- | 700 |
| HEPTACHLOR | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.01 | -- | 0.008 | -- | 0.01 |
| HEPTACHLOR EPOXIDE | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.01 | -- | 0.006 | -- | 0.01 |
| HEXACHLOROBENZENE | UG/L | 0 | 5 | 0% | -- | -- | -- | 1 | -- | 0.03 | -- | 1 |
| HEXACHLOROBUTADIENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| HEXACHLOROCYCLOPENTADIENE | UG/L | 0 | 5 | 0% | -- | -- | -- | 50 | -- | 50 | -- | 50 |
| HYDROXIDE ALKALINITY | MG/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ISOPROPYLBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 770 | 770 |
| LINDANE | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.2 | -- | 0.032 | -- | 0.2 |
| M,P-XYLENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- | 1,750 |
| METHOXYCHLOR | UG/L | 0 | 5 | 0% | -- | -- | -- | 30 | -- | 30 | -- | 30 |
| METHYL-TERT-BUTYL-ETHER (MTBE) | UG/L | 0 | 8 | 0% | -- | -- | -- | 13 | 5 | 13 | -- | -- |
| MOLINATE | UG/L | 0 | 9 | 0% | -- | -- | -- | 200 | -- | -- | -- | 200 |
| MONOCHLOROBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 70 | -- | 200 | -- | 70 |
| NAPHTHALENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 17 | 17 |
| N-BUTYLBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| NICKEL | UG/L | 0 | 4 | 0% | -- | -- | -- | 100 | -- | 12 | -- | 100 |
| NITRITE (AS N) | UG/L | 0 | 4 | 0% | -- | -- | -- | 1,000 | -- | 1,000 | -- | 1,000 |
| OXAMYL | UG/L | 0 | 2 | 0% | -- | -- | -- | 50 | -- | 50 | -- | 50 |
| O-XYLENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 1,750 | -- | 1,800 | -- | 1,750 |
| PENTACHLOROPHENOL | UG/L | 0 | 5 | 0% | -- | -- | -- | 1 | -- | 0.4 | -- | 1 |
| PICLORAM | UG/L | 0 | 5 | 0% | -- | -- | -- | 500 | -- | 500 | -- | 500 |
| P-ISOPOXYLTOLUENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| POLYCHLORINATED BIPHENYLS (TOTAL PCB'S) | UG/L | 0 | 5 | 0% | -- | -- | -- | 0.5 | -- | -- | -- | 0.5 |
| RADIUM 226 | PC/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | 0.069 | -- | -- |
| RADIUM 228 | PC/L | 0 | 5 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| SEC-BUTYLBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| SIMAZINE | UG/L | 0 | 10 | 0% | -- | -- | -- | 4 | -- | 4 | -- | 4 |
| STYRENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| TERT-AMYL-METHYL ETHER | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| TERT-BUTYL ALCOHOL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | 12 | 12 |
| TERT-BUTYLBENZENE | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| TETRAChLOROETHYLENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 5 | -- | 0.06 | -- | 5 |
| THALLIUM | UG/L | 0 | 4 | 0% | -- | -- | -- | 2 | -- | 0.1 | -- | 2 |
| THIOBENCARB | UG/L | 0 | 10 | 0% | -- | -- | -- | 70 | 1 | 70 | -- | 70 |
| TOLUENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 150 | -- | 150 | -- | 150 |
| TOXAPHENE | UG/L | 0 | 5 | 0% | -- | -- | -- | 3 | -- | 0.03 | -- | 3 |
| TRANS-1,2-DICHLOROETHYLENE | UG/L | 0 | 10 | 0% | -- | -- | -- | 10 | -- | 60 | -- | 10 |
| TRICHLOROFUOROMETHANE | UG/L | 0 | 10 | 0% | -- | -- | -- | 150 | -- | 700 | -- | 150 |
| VINYL CHLORIDE | UG/L | 0 | 10 | 0% | -- | -- | -- | 0.5 | -- | 0.05 | -- | 0.5 |
| XYLENES (TOTAL) | UG/L | 0 | 10 | 0% | -- | -- | -- | 1750 | -- | 1800 | -- | 1,750 |

Shading indicates exceedence of applicable standard.

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; CA PHG is not included.

CA = California

Bolding of value and qualifier means that the detection limit exceeds a CA Primary/Secondary

MCL, or DHS Action Level.

PHG = public health goal

DHS = Department of Health Services

TABLE 3-9

Summary of Constituents Analyzed in Groundwater Collected from the Las Flores Well 2 (June 1987 to September 2002; June and November 2003; March 2004)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---------------------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| AGGRESSIVE INDEX (CORROSIONITY) | NA | 4 | 4 | 100% | 11.66 | 12.17 | -- | -- | Non-Corrosive | -- | -- | Non-Corrosive |
| ALKALINITY (TOTAL) AS CACO3 | MG/L | 6 | 6 | 100% | 174 | 199 | -- | -- | -- | -- | -- | -- |
| BICARBONATE ALKALINITY | MG/L | 6 | 6 | 100% | 212.3 | 242 | 227.8 | -- | -- | -- | -- | -- |
| CALCIUM | MG/L | 6 | 6 | 100% | 66.6 | 98 | 81.67 | -- | -- | -- | -- | -- |
| CHLORIDE | MG/L | 6 | 6 | 100% | 33.6 | 44 | 39.05 | -- | 250 | -- | -- | 250 |
| CHROMIUM, HEXAVALENT | UG/L | 3 | 3 | 100% | 3.2 | 4.1 | 3.63 | -- | -- | -- | -- | -- |
| GROSS ALPHA | PCI/L | 15 | 15 | 100% | 4.4 | 16.6 | 10.93 | 15 | -- | -- | -- | 15 |
| GROSS BETA | PCI/L | 1 | 1 | 100% | 4.9 | 4.9 | 4.90 | 50 | -- | -- | -- | 50 |
| HARDNESS (TOTAL) AS CACO3 | MG/L | 6 | 6 | 100% | 262 | 332 | 291.7 | -- | 300 | -- | -- | 300 |
| MAGNESIUM | MG/L | 6 | 6 | 100% | 18 | 24.7 | 22.6 | -- | -- | -- | -- | -- |
| NITRATE (AS NO3) | MG/L | 176 | 176 | 100% | 33.88 | 60.3 | 45.95 | 45 | -- | 45 | -- | 45 |
| NITRATE + NITRITE (AS N) | UG/L | 5 | 5 | 100% | 8,830 | 11,000 | 10,049 | 10,000 | -- | 10,000 | -- | 10,000 |
| ODOR THRESHOLD @ 60 C | | 29 | 29 | 100% | 1 | 1 | 1 | -- | 3 | -- | -- | 3 |
| PH, LABORATORY | NA | 6 | 6 | 100% | 7 | 7.6 | 7.33 | -- | -- | -- | -- | -- |
| RADIUM 226 | PCI/L | 2 | 2 | 100% | 0.089 | 0.244 | 0.17 | 5 | -- | 0.069 | -- | 5 |
| SODIUM | MG/L | 6 | 6 | 100% | 20 | 28.2 | 24.35 | -- | -- | -- | -- | -- |
| SPECIFIC CONDUCTANCE | US | 5 | 5 | 100% | 560 | 780 | 648.8 | -- | 900 | -- | -- | 900 |
| SULFATE | MG/L | 6 | 6 | 100% | 46 | 78.1 | 64.93 | -- | 250 | -- | -- | 250 |
| TOTAL DISSOLVED SOLIDS | MG/L | 6 | 6 | 100% | 350 | 423 | 390.17 | -- | 500 | -- | -- | 500 |
| TURBIDITY | NTU | 4 | 4 | 100% | 0.1 | 0.1 | 0.1 | -- | 5 | -- | -- | 5 |
| URANIUM (PCI/L) | PCI/L | 30 | 30 | 100% | 7.3 | 41.8 | 13.28 | 20 | -- | 0.43 | -- | 20 |
| VANADIUM | UG/L | 3 | 3 | 100% | 3.5 | 5.8 | 4.90 | -- | -- | -- | 50 | 50 |
| PERCHLORATE | UG/L | 114 | 114 | 100% | 4 | 9 | 6.11 | -- | -- | 6 | 6 | 6 |
| FLUORIDE (TEMPERATURE DEPENDENT) | MG/L | 28 | 29 | 97% | 0.34 | 1 | 0.59 | 2 | -- | 1 | -- | 2 |
| TETRACHLOROETHYLENE | UG/L | 237 | 250 | 95% | 0.6 | 17 | 10.36 | 5 | -- | 0.06 | -- | 5 |
| POTASSIUM | MG/L | 5 | 6 | 83% | 1.7 | 3.9 | 2.28 | -- | -- | -- | -- | -- |
| COMBINE RA 226 + RA 228 | PCI/L | 2 | 4 | 50% | 0.07 | 0.16 | 0.42 | 5 | -- | -- | -- | 5 |
| ARSENIC | UG/L | 2 | 6 | 33% | 2.4 | 2.4 | 1.5 | 50 | -- | 0.004 | -- | 50 |
| TOTAL TRIHALOMETHANES | UG/L | 8 | 33 | 24% | 1 | 7.5 | 1.41 | -- | -- | -- | -- | -- |
| BROMOFORM (THM) | UG/L | 7 | 32 | 22% | 1.8 | 4 | 0.87 | -- | -- | -- | -- | -- |
| DIBROMOCHLOROMETHANE (THM) | UG/L | 7 | 32 | 22% | 1 | 2.6 | 0.60 | 100 | -- | -- | -- | 100 |
| ALUMINUM | UG/L | 1 | 5 | 20% | 69 | 69 | 42.25 | 1,000 | 200 | 600 | -- | 1000 |
| CARBONATE ALKALINITY | MG/L | 1 | 6 | 17% | 0.46 | 0.46 | 0.49 | -- | -- | -- | -- | -- |
| BROMODICHLORMETHANE (THM) | UG/L | 5 | 31 | 16% | 0.5 | 0.9 | 0.32 | -- | -- | -- | -- | -- |
| CHLOROFORM (THM) | UG/L | 6 | 41 | 15% | 0.5 | 1 | 1.52 | 100 | -- | -- | -- | 100 |
| DIBROMOCHLOROPROPANE (DBCP) | UG/L | 1 | 15 | 7% | 0.02 | 0.02 | 0.006 | 0.2 | -- | 0.0017 | -- | 0.2 |
| M,P-XYLENE | UG/L | 1 | 18 | 6% | 4.2 | 4.2 | 0.47 | 1,750 | -- | 1,800 | -- | 1,750 |
| O-XYLENE | UG/L | 1 | 18 | 6% | 1.1 | 1.1 | 0.30 | 1,750 | -- | 1,800 | -- | 1,750 |
| ETHYLBENZENE | UG/L | 1 | 20 | 5% | 0.9 | 0.9 | 0.28 | 300 | -- | 300 | -- | 300 |
| XYLENES (TOTAL) | UG/L | 1 | 20 | 5% | 5.3 | 5.3 | 0.50 | 1,750 | -- | 1,800 | -- | 1,750 |
| 1,1,1,2-TETRACHLORETHANE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,1,1-TRICHLOROETHANE | UG/L | 0 | 26 | 0% | -- | -- | -- | 200 | -- | 1,000 | -- | 200 |
| 1,1,2,2-TETRACHLORETHANE | UG/L | 0 | 20 | 0% | -- | -- | -- | 1 | -- | 0.1 | -- | 1 |
| 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE | UG/L | 0 | 18 | 0% | -- | -- | -- | 1,200 | -- | 4,000 | -- | 1,200 |
| 1,1,2-TRICHLOROETHANE | UG/L | 0 | 20 | 0% | -- | -- | -- | 5 | -- | 0.2 | -- | 5 |
| 1,1-DICHLOROETHANE | UG/L | 0 | 24 | 0% | -- | -- | -- | 5 | -- | 3 | -- | 5 |
| 1,1-DICHLOROETHYLENE | UG/L | 0 | 20 | 0% | -- | -- | -- | 6 | -- | 10 | -- | 6 |
| 1,1-DICHLOROPROPENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-TRICHLOROBENZENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,2,3-TRICHLOROPROPANE | UG/L | 0 | 16 | 0% | -- | -- | -- | -- | -- | 0.005 | 0.005 | 0.005 |
| 1,2,4-TRICHLOROBENZENE | UG/L | 0 | 19 | 0% | -- | -- | -- | 5 | -- | 5 | -- | 5 |
| 1,2,4-TRIMETHYLBENZENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | 330 | 330 | 330 |
| 1,2-DICHLOROBENZENE | UG/L | 0 | 21 | 0% | -- | -- | -- | 600 | -- | 600 | -- | 600 |
| 1,2-DICHLOROETHANE | UG/L | 0 | 20 | 0% | -- | -- | -- | 0.5 | -- | 0.4 | -- | 0.5 |
| 1,2-DICHLOROPROPANE | UG/L | 0 | 21 | 0% | -- | -- | -- | 5 | -- | 0.5 | -- | 5 |
| 1,3,5-TRIMETHYLBENZENE | UG/L | 0 | 17 | 0% | -- | -- | -- | -- | -- | 330 | 330 | 330 |
| 1,3-DICHLOROBENZENE | UG/L | 0 | 21 | 0% | -- | -- | -- | -- | -- | 600 | 600 | 600 |
| 1,3-DICHLOROPROPANE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 1,3-DICHLOROPROPENE (TOTAL) | UG/L | 0 | 18 | 0% | -- | -- | -- | 0.5 | -- | 0.2 | -- | 0.5 |
| 1,4-DICHLOROBENZENE | UG/L | 0 | 21 | 0% | -- | -- | -- | 5 | -- | 6 | -- | 5 |
| 1-PHENYLPROPANE (N-PROPYLBENZENE) | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | 260 | 260 | 260 |
| 2,2-DICHLOROPROPANE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,3,7-TCDD (DIOXIN) | UG/L | 0 | 2 | 0% | -- | -- | -- | 0.00003 | -- | -- | -- | 0.00003 |
| 2,4,5-TP (SILVEX) | UG/L | 0 | 4 | 0% | -- | -- | -- | 50 | -- | 25 | -- | 50 |
| 2,4,6-TRICHLOROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | UG/L | 0 | 6 | 0% | -- | -- | -- | 70 | -- | 70 | -- | 70 |
| 2,4-DICHLOROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DIMETHYLPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 100 | 100 | 100 |
| 2,4-DINITROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DINITROTOLUENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,6-DINITROTOLUENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLOROETHYLVINYL ETHER | UG/L | 0 | 16 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLORONAPHTHALENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLOROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-CHLORTOLUENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | 140 | 140 | 140 |
| 2-METHYL-4,6-DINITROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 2-NITROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 3,3-DICHLOROBENZIDINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 3-HYDROCARBONFURAN | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDD | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4-DDT | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-BROMOPHENYL PHENYL ETHER | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-CHLOROPHENYL PHENYL ETHER | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| 4-CHLOROTOLUENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | 140 | 140 | 140 |
| 4-NITROPHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ACENAPHTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ACENAPHTHYLENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ALACHLOR | UG/L | 0 | 7 | 0% | -- | -- | -- | 2 | -- | 4 | -- | 2 |
| ALDICARB | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | 7 | 7 | 7 |
| ALDICARB SULFONE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ALDICARB SULFOXIDE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ALDRIN | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | 0.002 | 0.002 | 0.002 |

TABLE 3-9

Summary of Constituents Analyzed in Groundwater Collected from the Las Flores Well 2 (June 1987 to September 2002; June and November 2003; March 2004)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|--------------------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| ALPHA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ANTHRACENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ANTIMONY | UG/L | 0 | 5 | 0% | -- | -- | -- | 6 | -- | 20 | -- | 6 |
| ATRAZINE | UG/L | 0 | 12 | 0% | -- | -- | -- | 1.0 | -- | 0.15 | -- | 1 |
| BARIUM | UG/L | 0 | 6 | 0% | -- | -- | -- | 1,000 | -- | 2,000 | -- | 1,000 |
| BENFLURALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BENTAZON | UG/L | 0 | 4 | 0% | -- | -- | -- | 18 | -- | 200 | -- | 18 |
| BENZENE | UG/L | 0 | 20 | 0% | -- | -- | -- | 1 | -- | 0.15 | -- | 1 |
| BENZIDINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BENZO (A) ANTHRACENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BENZO (A) PYRENE | UG/L | 0 | 3 | 0% | -- | -- | 0.2 | -- | -- | 0.004 | -- | 0.2 |
| BENZO (B) FLUORANTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BENZO (GHI) PERYLENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BENZO (K) FLUORANTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BENZYL BUTYL PHthalATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BERYLLIUM | UG/L | 0 | 5 | 0% | -- | -- | 4 | -- | -- | 1 | -- | 4 |
| BETA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BIS (2-CHLOROETHoxy) METHANE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BIS (2-CHLOROETHYL) ETHER | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BORON | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | 1,000 | 1,000 |
| BROMACIL | UG/L | 0 | 7 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BROMOBENZENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BROMOCHLOROMETHANE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BROMOMETHANE | UG/L | 0 | 21 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| BUTACHLOR | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CADMIUM | UG/L | 0 | 6 | 0% | -- | -- | 5 | -- | 0.07 | -- | -- | 5 |
| CAPTAN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 1.5 | 2 |
| CARBARYL | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | 700 | 700 | 700 |
| CARBOFURAN | UG/L | 0 | 4 | 0% | -- | -- | 18 | -- | 1.7 | -- | -- | 18 |
| CARBON TETRACHLORIDE | UG/L | 0 | 30 | 0% | -- | -- | 0.5 | -- | 0.1 | -- | -- | 0.5 |
| CHLORDANE | UG/L | 0 | 6 | 0% | -- | -- | 0.1 | -- | 0.03 | -- | -- | 0.1 |
| CHLORDIMEFORM | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CHLOROETHANE | UG/L | 0 | 20 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CHLOROMETHANE | UG/L | 0 | 20 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CHLOROPICRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 56 | 56 | 56 |
| CHLOROTHALONIL | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CHROMIUM (TOTAL) | UG/L | 0 | 7 | 0% | -- | -- | 50 | -- | -- | -- | -- | 50 |
| CHRYSENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CIS-1,2-DICHLOROETHYLENE | UG/L | 0 | 18 | 0% | -- | -- | 6 | -- | 100 | -- | -- | 6 |
| CIS-1,3-DICHLOROPROPENE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CIS-PERMETHRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| COLOR | UNITS | 0 | 4 | 0% | -- | -- | -- | 15 | -- | -- | -- | 15 |
| COPPER | UG/L | 0 | 6 | 0% | -- | -- | -- | 1,000 | 170 | 1,300 | 1,000 | 1,000 |
| CYANAZINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| CYANIDE | UG/L | 0 | 5 | 0% | -- | -- | 150 | -- | 150 | -- | -- | 150 |
| DACTHAL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DALAPON | UG/L | 0 | 4 | 0% | -- | -- | 200 | -- | 790 | -- | -- | 200 |
| DELTA-BHC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DI(2-ETHYLHEXYL)ADIPATE | UG/L | 0 | 2 | 0% | -- | -- | 400 | -- | 200 | -- | -- | 400 |
| DI(2-ETHYLHEXYL)PHTHALATE | UG/L | 0 | 3 | 0% | -- | -- | 4 | -- | 12 | -- | -- | 4 |
| DIAZINON | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | -- | 6 | 6 |
| DIBENZO (A,H) ANTRACENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DIBROMOMETHANE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DICAMBA | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DICHLORODIFLUOROMETHANE | UG/L | 0 | 21 | 0% | -- | -- | -- | -- | -- | -- | 1,000 | 1,000 |
| DICHLOROMETHANE (METHYLENE CHLORIDE) | UG/L | 0 | 20 | 0% | -- | -- | 5 | -- | 4 | -- | -- | 5 |
| DICOFOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DIELDRIN | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | 0.002 | 0.002 | 0.002 |
| DIETHYL PHTHALATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DIMETHOATE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DIMETHYL PHTHALATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DI-N-BUTYLPHthalATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DI-N-OCTYLPHthalATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DINOSEB | UG/L | 0 | 5 | 0% | -- | -- | 7 | -- | 14 | -- | -- | 7 |
| DIPHENAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | 200 | 200 | 200 |
| DIQUAT | UG/L | 0 | 6 | 0% | -- | -- | 20 | -- | 15 | -- | -- | 20 |
| DIURON | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| DNOC | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN I | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN II | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ENDOSULFAN SULFATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ENDOTHALL | UG/L | 0 | 3 | 0% | -- | -- | 100 | -- | 580 | -- | -- | 100 |
| ENDRIN | UG/L | 0 | 6 | 0% | -- | -- | 2 | -- | 1.8 | -- | -- | 2 |
| ENDRIN ALDEHYDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ETHYLENE DIBROMIDE (EDB) | UG/L | 0 | 10 | 0% | -- | -- | 0.05 | -- | 0.01 | -- | -- | 0.05 |
| ETHYL-TERT-BUTYL ETHER | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUORALORALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUORANTHENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FLUORENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| FOAMING AGENTS (MBAS) | UG/L | 0 | 6 | 0% | -- | -- | -- | 500 | -- | -- | -- | 500 |
| GLYPHOSATE | UG/L | 0 | 6 | 0% | -- | -- | 700 | -- | 1,000 | -- | -- | 700 |
| HEPTACHLOR | UG/L | 0 | 5 | 0% | -- | -- | 0.01 | -- | 0.008 | -- | -- | 0.01 |
| HEPTACHLOR EPOXIDE | UG/L | 0 | 5 | 0% | -- | -- | 0.01 | -- | 0.006 | -- | -- | 0.01 |
| HEXAChLOROBENZENE | UG/L | 0 | 5 | 0% | -- | -- | 1 | -- | 0.03 | -- | -- | 1 |
| HEXAChLOROBUTADIENE | UG/L | 0 | 19 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| HEXAChLOROCYCLOPENTADIENE | UG/L | 0 | 1 | 0% | -- | -- | 50 | -- | 50 | -- | -- | 50 |
| HEXAChLOROETHANE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| HYDROXIDE ALkalinity | MG/L | 0 | 6 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| INDENO (1,2,3-CD) PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| IRON | UG/L | 0 | 7 | 0% | -- | -- | -- | 300 | -- | -- | -- | 300 |
| ISOPHORONE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| ISOPROPYLBENZENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | 770 | 770 | 770 |
| KEROSENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| LEAD | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | 2 | 15 | 15 | 15 |

TABLE 3-9

Summary of Constituents Analyzed in Groundwater Collected from the Las Flores Well 2 (June 1987 to September 2002; June and November 2003; March 2004)

| Analyte | Units | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Regulatory Limit * |
|---|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|-------------------------------|
| LINDANE | UG/L | 0 | 6 | 0% | -- | -- | -- | 0.2 | -- | 0.032 | -- | 0.2 |
| MANGANESE | UG/L | 0 | 6 | 0% | -- | -- | -- | 50 | -- | 500 | 50 | |
| MERCURY | UG/L | 0 | 6 | 0% | -- | -- | -- | 2 | -- | 1.2 | -- | 2 |
| MERPHOS | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| METHOMYL | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| METHOXYCHLOR | UG/L | 0 | 5 | 0% | -- | -- | -- | 30 | -- | 30 | -- | 30 |
| METHYL ETHYL KETONE | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| METHYL ISOBUTYL KETONE | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | 120 | 120 | |
| METHYL-TERT-BUTYL-ETHER (MTBE) | UG/L | 0 | 14 | 0% | -- | -- | -- | 13 | 5 | 13 | -- | -- |
| METOLACHLOR | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| METRIBUZIN | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| MOLINATE | UG/L | 0 | 10 | 0% | -- | -- | -- | 200 | -- | -- | -- | 200 |
| MONOCHLOROBENZENE | UG/L | 0 | 20 | 0% | -- | -- | -- | 70 | -- | 200 | -- | 70 |
| NAPHTHALENE | UG/L | 0 | 19 | 0% | -- | -- | -- | -- | -- | -- | 17 | 17 |
| NAPROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | -- |
| N-BUTYLBENZENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| NICKEL | UG/L | 0 | 5 | 0% | -- | -- | -- | 100 | -- | 12 | -- | 100 |
| NITRITE (AS N) | UG/L | 0 | 5 | 0% | -- | -- | -- | 1,000 | -- | 1,000 | -- | 1,000 |
| NITROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| N-NITROSODIMETHYLAMINE (NDMA) | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 0.01 | 0.01 |
| N-NITROSODI-N-PROPYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| N-NITROSODIPHENYLAMINE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| ORYZALIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| OXAMYL | UG/L | 0 | 4 | 0% | -- | -- | -- | 50 | -- | 50 | -- | 50 |
| PCB-1016 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PCB-1221 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PCB-1232 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PCB-1242 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PCB-1248 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PCB-1254 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PCB-1260 | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PENTACHLOROBENZENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PENTACHLOROPHENOL | UG/L | 0 | 5 | 0% | -- | -- | -- | 1 | -- | 0.4 | -- | 1 |
| PHENANTHRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PHENOL | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | 4,200 | 4,200 |
| PICLORAM | UG/L | 0 | 4 | 0% | -- | -- | -- | 500 | -- | 500 | -- | 500 |
| P-ISOPROPYL TOLUENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| POLYCHLORINATED BIPHENYLS (TOTAL PCB'S) | UG/L | 0 | 4 | 0% | -- | -- | -- | 0.5 | -- | -- | -- | 0.5 |
| PROMETRYN | UG/L | 0 | 3 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PROPACHLOR | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PROPAMIDE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PROPARGITE | MG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| PYRENE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| RADIUM 228 | PCI/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| S,S,S-TRIBUTYLPHOSPHOROTHITHIOATE | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| SEC-BUTYLBENZENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| SELENIUM | UG/L | 0 | 6 | 0% | -- | -- | -- | 50 | -- | -- | -- | 50 |
| SILVER | UG/L | 0 | 6 | 0% | -- | -- | -- | -- | 100 | -- | -- | 100 |
| SIMAZINE | UG/L | 0 | 12 | 0% | -- | -- | -- | 4 | -- | 4 | -- | 4 |
| STYRENE | UG/L | 0 | 18 | 0% | -- | -- | -- | 100 | -- | -- | -- | 100 |
| TERT-AMYL-METHYL ETHER | UG/L | 0 | 10 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| TERT-BUTYL ALCOHOL | UG/L | 0 | 4 | 0% | -- | -- | -- | -- | -- | -- | 12 | 12 |
| TERT-BUTYLBENZENE | UG/L | 0 | 18 | 0% | -- | -- | -- | -- | -- | -- | 260 | 260 |
| THALLIUM | UG/L | 0 | 5 | 0% | -- | -- | -- | 2 | -- | 0.1 | -- | 2 |
| THIOBENCARB | UG/L | 0 | 13 | 0% | -- | -- | -- | 70 | 1 | 70 | -- | 70 |
| TOLUENE | UG/L | 0 | 20 | 0% | -- | -- | -- | 150 | -- | 150 | -- | 150 |
| TOXAPHENE | UG/L | 0 | 6 | 0% | -- | -- | -- | 3 | -- | 0.03 | -- | 3 |
| TRANS-1,2-DICHLOROETHYLENE | UG/L | 0 | 20 | 0% | -- | -- | -- | 10 | -- | 60 | -- | 10 |
| TRANS-1,3-DICHLOROPROPENE | UG/L | 0 | 2 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| TRANS-PERMETHRIN | UG/L | 0 | 1 | 0% | -- | -- | -- | -- | -- | -- | -- | |
| TRICHLOROETHYLENE | UG/L | 0 | 31 | 0% | -- | -- | -- | 5 | -- | 0.8 | -- | 5 |
| TRICHLOROFLUOROMETHANE | UG/L | 0 | 20 | 0% | -- | -- | -- | 150 | -- | 700 | -- | 150 |
| VINYL CHLORIDE | UG/L | 0 | 20 | 0% | -- | -- | -- | 0.5 | -- | 0.05 | -- | 0.5 |
| ZINC | UG/L | 0 | 7 | 0% | -- | -- | -- | -- | 5,000 | -- | -- | 5,000 |

Shading indicates exceedance of applicable standard.

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; CA PHG is not included.

CA = California

Bolding of value and qualifier means that the detection limit exceeds a CA Primary/Secondary

MCL, or DHS Action Level.

MCL = maximum contaminant level

PHG = public health goal

DHS = Department of Health Services

TABLE 3-10

Monitoring Wells Selected for Comprehensive Groundwater Monitoring Event for DHS Policy Memo 97-005 Permit

| Sampling Location | Well Type | Aquifer Layer | Capture Zone | Comments |
|--------------------------|------------------|----------------------|--|--|
| MW-3, Screen 3 | Multiport | Layer 2 | Arroyo Well | <ul style="list-style-type: none"> Exceeds perchlorate and carbon tetrachloride MCLs/ALs. Provides indication of intermediate (Layer 2) groundwater quality midway between the primary source areas and the production well. Also located near historical seepage pit. |
| MW-3, Screen 5 | Multiport | Layer 4 | Arroyo Well | <ul style="list-style-type: none"> Perchlorate exceeds AL. Provides indication of deep (Layer 4) groundwater quality midway between the primary source areas and the production well. Also located near historical seepage pit. |
| MW-4, Screen 1 | Multiport | Layer 1 | Arroyo Well | <ul style="list-style-type: none"> Perchlorate exceeds AL. Provides indication of shallow (Layer 1) groundwater quality midway between the primary source areas and the production well. Also located near historical seepage pit. |
| MW-4, Screen 2 | Multiport | Layer 2 | Arroyo Well (top of Layer 2) and Well 52 (bottom on Layer 2) | <ul style="list-style-type: none"> Perchlorate, TCE, carbon tetrachloride, and 1,2-DCA exceed MCLs/ALs. Provides indication of intermediate (Layer 2) groundwater quality midway between the primary source areas and the production well. Also located near historical seepage pit. |
| MW-4, Screen 5 | Multiport | Layer 4 | Well 52 | <ul style="list-style-type: none"> Trace contamination detected (MCLs or ALs not exceeded). Provides indication of deep (Layer 3 and Layer 4) groundwater quality midway between the primary source areas and the production wells. Also located near historical seepage pit. |
| MW-7 | Shallow | Layer 1 | Arroyo Well | <ul style="list-style-type: none"> Perchlorate and carbon tetrachloride exceed MCL/ALs. Perchlorate concentrations are indicative of potential source areas (hot spots) within the shallow groundwater (Layer 1). |
| MW-8 | Shallow | Layer 1 | Arroyo Well | <ul style="list-style-type: none"> Perchlorate and carbon tetrachloride exceed MCLs/ALs. Provides indication of shallow (Layer 1) water quality. Concentrations increased during 2002, indicating that MW-8 may be near a source area. |
| MW-10 | Shallow | Layer 1 | Well 52 | <ul style="list-style-type: none"> Perchlorate, TCE, and carbon tetrachloride exceed MCLs/ALs. Provides indication of shallow (Layer 1) groundwater quality. |

TABLE 3-10

Monitoring Wells Selected for Comprehensive Groundwater Monitoring Event for DHS Policy Memo 97-005 Permit

| Sampling Location | Well Type | Aquifer Layer | Capture Zone | Comments |
|--------------------------|------------------|----------------------|---------------------|---|
| MW-12, Screen 3 | Multiport | Layer 2 | Arroyo Well | <ul style="list-style-type: none"> Carbon tetrachloride exceeds MCLs. Provides indication of intermediate (Layer 2) groundwater. |
| MW-12, Screen 5 | Multiport | Layer 4 | Arroyo Well | <ul style="list-style-type: none"> Carbon tetrachloride exceeds MCLs. Provides indication of deep (Layer 4) groundwater |
| MW-14, Screen 2 | Multiport | Layer 2 | Well 52 | <ul style="list-style-type: none"> Perchlorate exceeds AL. Provides indication of intermediate (Layer 2) groundwater quality. May represent water quality upgradient of JPL facility. |
| MW-14, Screen 4 | Multiport | Layer 3 | Well 52 | <ul style="list-style-type: none"> Perchlorate exceeds AL. Provides indication of deep (Layer 3) groundwater quality. May represent water quality upgradient of JPL facility. |
| MW-16 | Shallow | Layer 1 | Arroyo Well | <ul style="list-style-type: none"> Perchlorate, TCE, carbon tetrachloride, and 1,2-DCA exceed MCLs/ALs. Provides indication of shallow (Layer 1) groundwater quality within primary source area. |
| MW-17, Screen 3 | Multiport | Layer 3 | Possibly Well 52 | <ul style="list-style-type: none"> Perchlorate, TCE, and carbon tetrachloride exceed MCLs/ALs. May be within zone of capture for Well 52, particularly if Lincoln #3 is not in service. Provides indication of intermediate (Layer 2) groundwater quality down-gradient of Well 52, but still within eastern side of capture zone. |
| MW-17, Screen 4 | Multiport | Layer 4 | Well 52 | <ul style="list-style-type: none"> Perchlorate and TCE exceed MCLs/ALs. Provides indication of deep (Layer 3 and Layer 4) groundwater quality down-gradient of Well 52, but still within eastern side of capture zone. |
| MW-18, Screen 3 | Multiport | Layer 2 | Well 52 | <ul style="list-style-type: none"> Perchlorate, TCE, and carbon tetrachloride exceed MCLs/ALs Provides indication of intermediate (Layer 2) groundwater quality down-gradient of Arroyo Seco on eastern side of Well 52 capture zone. |

TABLE 3-10

Monitoring Wells Selected for Comprehensive Groundwater Monitoring Event for DHS Policy Memo 97-005 Permit

| Sampling Location | Well Type | Aquifer Layer | Capture Zone | Comments |
|--------------------------|------------------|----------------------|--|---|
| MW-18, Screen 4 | Multiport | Layer 3 | Arroyo Well | <ul style="list-style-type: none"> • Perchlorate and carbon tetrachloride exceed MCLs/ALs. • Upper portion of Layer 3 may be within zone of capture for Well 52; and lower portion of Layer 3 may be within zone of capture for Arroyo Well. • Provides indication of deep (Layer 3) groundwater quality down-gradient of Arroyo Seco on eastern side of Well 52 capture zone. |
| MW-19, Screen 3 | Multiport | Layer 2 | Windsor | <ul style="list-style-type: none"> • Perchlorate exceeds ALs. • Provides indication of intermediate (Layer 2) groundwater quality down-gradient of Arroyo Seco. |
| MW-19, Screen 5 | Multiport | Layer 3 | Windsor | <ul style="list-style-type: none"> • Perchlorate exceeds ALs. • Provides indication of deep (Layer 3) groundwater quality down-gradient of Arroyo Seco. |
| MW-21 Screen 3 | Multiport | Layer 2 | Windsor (top of layer 2) / Ventura (bottom of layer 2) | <ul style="list-style-type: none"> • Perchlorate, TCE, and carbon tetrachloride exceed MCLs/ALs. • Provides indication of intermediate (Layer 2) groundwater quality up-gradient of Arroyo Seco |
| MW-21, Screen 5 | Multiport | Layer 3 | Ventura | <ul style="list-style-type: none"> • Perchlorate, TCE, and carbon tetrachloride exceed MCLs/ALs. • Provides indication of deep (Layer 3) groundwater quality up-gradient of Arroyo Seco |
| MW-24, Screen 2 | Multiport | Layer 2 | Arroyo Well | <ul style="list-style-type: none"> • Perchlorate, TCE, carbon tetrachloride, and 1,2-DCA exceed MCLs/ALs. • Provides indication of intermediate (Layer 2) groundwater quality within primary source area. |

Notes:

MCL – Maximum Contaminant Level

AL – California DHS Action Level

TABLE 3-11

Estimated Water Quality of Arroyo Well Based on JPL Monitoring Wells

Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|---|----------------------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| HARDNESS (TOTAL) AS CACO ₃ | mg/L | 5 | 5 | 100% | 146 | 382 | 215 | -- | -- | -- | -- | -- |
| TOTAL DISSOLVED SOLIDS (TDS) | mg/L | 8 | 8 | 100% | 232 | 608 | 314.625 | -- | 1000 | -- | -- | 1000 |
| TURBIDITY | NTU | 8 | 8 | 100% | 1.6 | 21.3 | 5.2125 | -- | 5 | -- | -- | 5 |
| ARSENIC | µg/L | 8 | 8 | 100% | 0.5 | 1.4 | 0.925 | 50 | -- | -- | -- | 50 |
| BARIUM | µg/L | 8 | 8 | 100% | 41.4 | 108 | 72.7125 | 1000 | -- | -- | -- | 1000 |
| BORON | µg/L | 8 | 8 | 100% | 9.2 | 182 | 112.05 | -- | -- | -- | 1000 | 1000 |
| CALCIUM | µg/L | 8 | 8 | 100% | 14600 | 96000 | 49625 | -- | -- | -- | -- | -- |
| CHROMIUM | µg/L | 8 | 8 | 100% | 0.5 | 4.1 | 2.875 | 50 | -- | -- | -- | 50 |
| MAGNESIUM | µg/L | 8 | 8 | 100% | 334 | 36300 | 17026 | -- | -- | -- | -- | -- |
| MANGANESE | µg/L | 8 | 8 | 100% | 0.1 | 49.7 | 11.85 | -- | 50 | -- | 500 | 50 |
| POTASSIUM | µg/L | 8 | 8 | 100% | 1900 | 3720 | 2819 | -- | -- | -- | -- | -- |
| SODIUM | µg/L | 8 | 8 | 100% | 500 | 47800 | 28450 | -- | -- | -- | -- | -- |
| VANADIUM | µg/L | 8 | 8 | 100% | 0.8 | 7.5 | 3.6125 | -- | -- | -- | 50 | 50 |
| CHLORIDE | mg/L | 8 | 8 | 100% | 8.4 | 92.9 | 29.625 | -- | 500 | -- | -- | 500 |
| FLUORIDE | mg/L | 8 | 8 | 100% | 0.86 | 4.1 | 1.482 | 2 | -- | 1 | -- | 2 |
| SULFATE (SO ₄ --) | mg/L | 8 | 8 | 100% | 12.6 | 107 | 41.813 | -- | 500 | -- | -- | 500 |
| ALKALINITY | mg/L | 5 | 5 | 100% | 135 | 230 | 170.2 | -- | -- | -- | -- | -- |
| PH | UNIT | 8 | 8 | 100% | 6.93 | 9.39 | 7.641 | -- | -- | -- | -- | -- |
| COLOR | COLOR | 7 | 8 | 88% | 5 | 10 | 5.0625 | -- | 15 | -- | -- | 15 |
| COPPER | µg/L | 7 | 8 | 88% | 0.8 | 4 | 1.83125 | -- | 1000 | 170 | 1300 | 1000 |
| LEAD | µg/L | 7 | 8 | 88% | 0.09 | 1.1 | 0.27375 | -- | -- | 2 | 15 | 15 |
| NICKEL | µg/L | 7 | 8 | 88% | 0.7 | 2.8 | 1.925 | 100 | -- | 12 | -- | 100 |
| ALPHA, GROSS | PCI/L | 4 | 5 | 80% | 2.41 | 9.76 | 5.063 | 15 | -- | -- | -- | 15 |
| BETA, GROSS | PCI/L | 4 | 5 | 80% | 3.82 | 9.16 | 4.418 | 50 | -- | -- | -- | 50 |
| SELENIUM | µg/L | 6 | 8 | 75% | 0.3 | 1.9 | 0.7 | 50 | -- | -- | -- | 50 |
| ZINC | µg/L | 6 | 8 | 75% | 4.6 | 80.7 | 19.375 | -- | 5000 | -- | -- | 5000 |
| NITRATE - NO ₃ | mg/L | 6 | 8 | 75% | 0.64 | 8.3 | 2.771 | 45 | -- | 45 | -- | 45 |
| CHLOROFORM | µg/L | 6 | 8 | 75% | 0.4 | 2.9 | 1.076 | 100 | -- | -- | -- | 100 |
| ALUMINUM | µg/L | 5 | 8 | 63% | 1.2 | 12 | 11.775 | 1000 | 200 | 600 | -- | 1000 |
| ANTIMONY | µg/L | 5 | 8 | 63% | 0.1 | 1.8 | 0.43125 | 6 | -- | 20 | -- | 6 |
| COBALT | µg/L | 5 | 8 | 63% | 0.044 | 0.1 | 0.084 | -- | -- | -- | -- | -- |
| IRON | µg/L | 5 | 8 | 63% | 45.5 | 983 | 197.5 | -- | 300 | -- | -- | 300 |
| TRICHLOROETHENE (TCE) | µg/L | 5 | 8 | 63% | 0.5 | 7.8 | 1.831 | 5 | -- | 0.8 | -- | -- |
| 1,4-DIOXANE | µg/L | 5 | 8 | 63% | 0.6 | 1.9 | 1 | -- | -- | 3 | -- | 3 |
| RDX | µg/L | 5 | 8 | 63% | 0.66 | 27.3 | 5.261 | -- | -- | -- | -- | -- |
| 1,2,3-TRICHLOROPROPANE | µg/L | 2 | 4 | 50% | 0.024 | 0.071 | 0.025 | -- | -- | -- | 0.005 | 0.005 |
| TPH-MOTOR OILS | mg/L | 2 | 4 | 50% | 0.03 | 0.09 | 0.27 | -- | -- | -- | -- | -- |
| 2,4,6-TRINITROTOLUENE (TNT) | µg/L | 4 | 8 | 50% | 2.2 | 25.7 | 4.736 | -- | -- | -- | -- | -- |
| N-NITROSODIPHENYLAMINE | µg/L | 4 | 8 | 50% | 0.002 | 0.025 | 0.005 | -- | -- | -- | -- | -- |
| BIOLOGIC OXYGEN DEMAND | mg O ₂ /L | 2 | 5 | 40% | 0.88 | 2 | 1.646 | -- | -- | -- | -- | -- |
| TOTAL ORGANIC CARBON | mg/L | 2 | 5 | 40% | 1.2 | 5.9 | 1.95 | -- | -- | -- | -- | -- |
| THALLIUM | µg/L | 3 | 8 | 38% | 0.037 | 0.2 | 0.099 | 2 | -- | 0.1 | -- | 2 |
| PERCHLORATE | µg/L | 3 | 8 | 38% | 28.2 | 127 | 24.238 | -- | -- | -- | 6 | 6 |
| CARBON TETRACHLORIDE | µg/L | 3 | 8 | 38% | 9.21 | 13.2 | 4.016 | 0.5 | -- | 0.1 | -- | 0.5 |
| CHLOROFORM | µg/L | 1 | 3 | 33% | 5.8 | 5.8 | 2.1 | 100 | -- | -- | -- | 100 |
| TOTAL TRIHALOMETHANES | µg/L | 1 | 3 | 33% | 5.8 | 5.8 | 2.1 | 100 | -- | -- | -- | 100 |
| METHYLENE CHLORIDE (DICHLOROMETHANE) ⁽¹⁾ | µg/L | 2 | 7 | 29% | 0.400 | 5.8 | 1.286 | 5 | -- | 4 | -- | 5 |
| CADMIUM | µg/L | 2 | 8 | 25% | 0.046 | 0.049 | 0.087 | 5 | -- | 0.07 | -- | 5 |
| CHLORATE | µg/L | 2 | 8 | 25% | 0.099 | 0.52 | 0.115 | -- | -- | -- | -- | -- |
| TETRACHLOROETHENE (PCE) | µg/L | 2 | 8 | 25% | 0.6 | 5.5 | 0.95 | 5 | -- | 0.06 | -- | 5 |
| TPH-DIESEL | mg/L | 1 | 4 | 25% | 0.01 | 0.01 | 0.3625 | -- | -- | -- | -- | -- |
| HMX | µg/L | 2 | 8 | 25% | 0.7 | 2.5 | 1.181 | -- | -- | -- | -- | -- |
| MERCURY | µg/L | 2 | 8 | 25% | 0.1 | 0.1 | 0.092 | 2 | -- | 1.2 | -- | 2 |
| N-NITROSODIMETHYLAMINE (NDMA) | µg/L | 2 | 8 | 25% | 0.0004 | 0.006 | 0.0015 | -- | -- | -- | 0.01 | 0.01 |
| BERYLLIUM | µg/L | 1 | 8 | 13% | 1 | 1 | 0.2125 | 4 | -- | -- | -- | 4 |
| CHROMIUM (VI) | mg/L | 1 | 8 | 13% | 0.0009 | 0.0009 | 0.0002 | -- | -- | 0.0002 | -- | -- |
| BROMIDE | mg/L | 1 | 8 | 13% | 0.120 | 0.120 | 0.471 | -- | -- | -- | -- | -- |
| FOAMING AGENTS (MBAS) | mg/L | 1 | 8 | 13% | 0.05 | 0.05 | 0.026125 | -- | 0.5 | -- | -- | 0.5 |
| PROPACHLOR | µg/L | 1 | 8 | 13% | 0.28 | 0.28 | 0.079 | -- | -- | -- | -- | -- |
| 1,1,2-TRICHLOROTRIFLUOROETHANE | µg/L | 1 | 8 | 13% | 2.1 | 2.1 | 0.481 | 1200 | -- | 4000 | -- | 1200 |
| 1,1-DICHLOROETHANE | µg/L | 1 | 8 | 13% | 0.4 | 0.4 | 0.181 | 5 | -- | -- | -- | 5 |
| ETHYLBENZENE | µg/L | 1 | 8 | 13% | 1.1 | 1.1 | 0.356 | 300 | -- | 300 | -- | 300 |
| STYRENE | µg/L | 1 | 8 | 13% | 0.5 | 0.5 | 0.281 | 100 | -- | -- | -- | 100 |
| TRICHLOROFLUOROMETHANE | µg/L | 1 | 8 | 13% | 0.4 | 0.4 | 0.269 | 150 | -- | 700 | -- | 150 |
| N-NITROSODI-N-PROPYLAMINE | µg/L | 1 | 8 | 13% | 0.125 | 0.125 | 0.018 | -- | -- | -- | -- | -- |
| SILVER | µg/L | -- | 8 | 0% | -- | -- | 0.1 | -- | 100 | -- | -- | 100 |
| NITRITE (AS N) | mg/L | -- | 8 | 0% | -- | -- | 0.171 | 1 | -- | 0.001 | -- | 1 |
| CYANIDE | mg/L | -- | 9 | 0% | -- | -- | 0.012 | 0.15 | -- | 0.15 | -- | 0.15 |
| CHEMICAL OXYGEN DEMAND | mg O ₂ /L | -- | 5 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE, EDB) | µg/L | -- | 4 | 0% | -- | -- | 0.01 | 0.05 | -- | -- | -- | 0.05 |
| DIBROMOCHLOROPROPANE (DBCP) | µg/L | -- | 4 | 0% | -- | -- | 0.01 | 0.2 | -- | 0.0017 | -- | 0.2 |
| ALACHLOR | µg/L | -- | 3 | 0% | -- | -- | 0.25 | 2 | -- | 4 | -- | 2 |
| ATRAZINE | µg/L | -- | 3 | 0% | -- | -- | 0.25 | 1 | -- | 0.15 | -- | 1 |
| BROMACIL | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BUTACHLOR | µg/L | -- | 3 | 0% | -- | -- | 0.19 | -- | -- | -- | -- | -- |
| DEMETON | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| DIAZINON | µg/L | -- | 3 | 0% | -- | -- | 0.125 | -- | -- | -- | 6 | 6 |
| DIMETHOATE | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | 1 | 1 |
| DISULFOTON | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| METOLACHLOR | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| METRIBUZIN | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| MEVINPHOS | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| MOLINATE | µg/L | -- | 3 | 0% | -- | -- | 0.25 | 20 | -- | -- | -- | 20 |

TABLE 3-11

Estimated Water Quality of Arroyo Well Based on JPL Monitoring Wells

Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|---|------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| PROMETON | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PROMETRYN | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PRONAMIDE | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| SIMAZINE | µg/L | -- | 3 | 0% | -- | -- | 0.25 | 4 | -- | 4 | -- | 4 |
| SIMETRYN | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| TERBUTRYN | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| THIOBENCARB | µg/L | -- | 3 | 0% | -- | -- | 0.25 | 70 | 1 | 70 | -- | 70 |
| 2,4'-DDD | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| 2,4'-DDE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| 2,4'-DDT | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | -- | -- |
| 4,4'-DDD | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | -- | -- |
| 4,4'-DDE | µg/L | -- | 8 | 0% | -- | -- | 0.005 | -- | -- | -- | -- | -- |
| 4,4'-DDT | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | -- | -- |
| ALACHLOR | µg/L | -- | 8 | 0% | -- | -- | 0.05 | 2 | -- | 4 | -- | 2 |
| ALDRIN | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | 0.002 | 0.002 |
| ALPHA-BHC | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | 0.015 | 0.015 |
| BENFLURALIN | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| BETA-BHC | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | 0.025 | 0.025 |
| CAPTAN | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | 1.5 | 1.5 |
| CARBOPHENOTHION | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| CHLORDANE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 0.1 | -- | 0.03 | -- | 0.1 |
| CHLOROTHALONIL | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| DELTA-BHC | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | 0.025 | 0.025 |
| DICOFOL | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| DIELDRIN | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | 0.002 | 0.002 |
| DMPA | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| ENDOSULFAN I | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | -- | -- |
| ENDOSULFAN II | µg/L | -- | 8 | 0% | -- | -- | 0.005 | -- | -- | -- | -- | -- |
| ENDOSULFAN SULFATE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| ENDRIN | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 2 | -- | 1.8 | -- | 2 |
| ENDRIN ALDEHYDE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| ENDRIN KETONE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| GAMMA- BHC (LINDANE) | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 0.2 | -- | 0.032 | -- | 0.2 |
| HEPTACHLOR | µg/L | -- | 8 | 0% | -- | -- | 0.005 | 0.01 | -- | 0.008 | -- | 0.01 |
| HEPTACHLOR EPOXIDE | µg/L | -- | 8 | 0% | -- | -- | 0.005 | 0.01 | -- | 0.006 | -- | 0.01 |
| HEXAChLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 1 | -- | -- | -- | 1 |
| METHOXYCHLOR | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 30 | -- | 30 | -- | 30 |
| NITROFEN | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| PCB-1016 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1221 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1232 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1242 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1248 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1254 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1260 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCNB | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| TOXAPHENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 3 | -- | -- | -- | 3 |
| 1,1,1,2-TETRACHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| 1,1,1-TRICHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 200 | -- | -- | -- | 200 |
| 1,1,2,2-TETRACHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 1 | -- | -- | -- | 1 |
| 1,1,2-TRICHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | -- | -- | 5 |
| 1,1-DICHLOROETHENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 6 | -- | 10 | -- | 6 |
| 1,2,3-TRICHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| 1,2,4-TRICHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | 5 | -- | 5 |
| 1,2,4-TRIMETHYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 330 | 330 |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE, EDB) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 0.05 | -- | -- | -- | 0.05 |
| 1,2-DICHLOROBENZENE (O-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 600 | -- | 600 | -- | 600 |
| 1,2-DICHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 0.5 | -- | 0.4 | -- | 0.5 |
| 1,2-DICHLOROPROPANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | 0.5 | -- | 5 |
| 1,3,5-TRIMETHYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 330 | 330 |
| 1,3-DICHLOROPROPANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| 1,4-DICHLOROBENZENE (PARA-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | 6 | -- | 5 |
| 2,2-DICHLOROPROPANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| 2-BUTANONE (METHYL ETHYL KETONE, MEK) | µg/L | -- | 8 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| 2-CHLOROETHYL VINYL ETHER | µg/L | -- | 8 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| 2-CHLOROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 140 | 140 |
| 2-HEXANONE | µg/L | -- | 8 | 0% | -- | -- | 1 | -- | -- | -- | -- | -- |
| 4-CHLOROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 140 | 140 |
| 4-METHYL-2-PENTANONE (MIBK) | µg/L | -- | 8 | 0% | -- | -- | 2.5 | -- | -- | -- | 120 | 120 |
| ACETONE | µg/L | -- | 8 | 0% | -- | -- | 2.925 | -- | -- | -- | -- | -- |
| ACROLEIN | µg/L | -- | 8 | 0% | -- | -- | 25 | -- | -- | -- | -- | -- |
| ACRYLONITRILE | µg/L | -- | 8 | 0% | -- | -- | 5 | -- | -- | -- | -- | -- |
| BENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 1 | -- | 0.15 | -- | 1 |
| BROMOBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BROMOCHLOROMETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BROMODICHLOROMETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BROMOFORM | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BROMOMETHANE (METHYL BROMIDE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| CARBON DISULFIDE | µg/L | -- | 8 | 0% | -- | -- | 1 | -- | -- | -- | 160 | 160 |
| CHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 70 | -- | -- | -- | 70 |
| CHLORODIBROMOMETHANE (THM) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| CHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| CHLOROMETHANE (METHYL CHLORIDE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |

TABLE 3-11

Estimated Water Quality of Arroyo Well Based on JPL Monitoring Wells

Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|-------------------------------------|------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| CIS-1,2-DICHLOROETHENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 6 | -- | -- | -- | 6 |
| CIS-1,3-DICHLOROPROPENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| DI-ISOPROPYL ETHER | µg/L | -- | 8 | 0% | -- | -- | 0.2525 | -- | -- | -- | -- | -- |
| DIBROMOMETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| DICHLORODIFLUOROMETHANE (FREON 112) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 1000 | 1000 |
| ETHYL-TERT-BUTYL ETHER (ETBE) | µg/L | -- | 8 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| HEXA-CHLOROBUTADIENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| ISOPROPYLBENZENE (CUMENE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 770 | 770 |
| M-XYLENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| METHYL ACETATE | µg/L | -- | 8 | 0% | -- | -- | 5 | -- | -- | -- | -- | -- |
| METHYL-T-BUTYL ETHER (MTBE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 13 | 5 | 13 | -- | 13 |
| N-BUTYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 260 | 260 |
| N-PROPYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 260 | 260 |
| NAPHTHALENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 17 | 17 |
| O-XYLENE | µg/L | -- | 8 | 0% | -- | -- | 0.1 | 1750 | -- | -- | -- | 1750 |
| P-ISOPROPYLTOLEUNE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| SEC-BUTYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 260 | 260 |
| TERT-AMYL-METHYL ETHER (TAME) | µg/L | -- | 8 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| TERT-BUTYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 260 | 260 |
| TERTIARY BUTYL ALCOHOL (TBA) | µg/L | -- | 8 | 0% | -- | -- | 2.625 | -- | -- | -- | 12 | 12 |
| TETRAHYDROFURAN | µg/L | -- | 8 | 0% | -- | -- | 1.056 | -- | -- | -- | -- | -- |
| TOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 150 | -- | 150 | -- | 150 |
| TRANS-1,2-DICHLOROETHENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 10 | -- | -- | -- | 10 |
| TRANS-1,3-DICHLOROPROPENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| VINYL ACETATE | µg/L | -- | 8 | 0% | -- | -- | 1 | -- | -- | -- | -- | -- |
| VINYL CHLORIDE (CHLOROETHANE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 0.5 | -- | 0.05 | -- | 0.5 |
| XYLENES (TOTAL) | µg/L | -- | 6 | 0% | -- | -- | 0.25 | 1750 | -- | 1800 | -- | 1750 |
| 3-HYDROXYCARBOFURAN | µg/L | -- | 2 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| ALDICARB | µg/L | -- | 2 | 0% | -- | -- | 1.5 | -- | -- | -- | 7 | 7 |
| ALDICARB SULFONE | µg/L | -- | 2 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| ALDICARB SULFOXIDE | µg/L | -- | 2 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| CARBARYL | µg/L | -- | 2 | 0% | -- | -- | 2.5 | -- | -- | -- | 700 | 700 |
| CARBOFURAN | µg/L | -- | 2 | 0% | -- | -- | 2.5 | 18 | -- | 1.7 | -- | 18 |
| METHIOCARB | µg/L | -- | 2 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| METHOMYL | µg/L | -- | 2 | 0% | -- | -- | 1 | -- | -- | -- | -- | -- |
| OXAMYL | µg/L | -- | 2 | 0% | -- | -- | 2.5 | 50 | -- | 50 | -- | 50 |
| PROPOXUR | µg/L | -- | 2 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| GLYPHOSATE | µg/L | -- | 3 | 0% | -- | -- | 5 | 700 | -- | 1000 | -- | 700 |
| ENDOTHALL | µg/L | -- | 3 | 0% | -- | -- | 85 | 100 | -- | 580 | -- | 100 |
| DIQUAT | µg/L | -- | 2 | 0% | -- | -- | 0.2 | 20 | -- | 15 | -- | 20 |
| PARAQUAT | µg/L | -- | 2 | 0% | -- | -- | 0.2 | -- | -- | -- | -- | -- |
| 1,1,1-TRICHLORO-2-PROPANONE | µg/L | -- | 3 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 1,1-DICHLOROPROPANONE | µg/L | -- | 3 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BROMOCHLOROACETONITRILE | µg/L | -- | 3 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| BROMODICHLOROMETHANE | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BROMOFORM | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| CHLORODIBROMOMETHANE (THM) | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| CHLOROPICRIN | µg/L | -- | 3 | 0% | -- | -- | 0.5 | -- | -- | -- | 56 | 56 |
| DIBROMOACETONITRILE | µg/L | -- | 3 | 0% | -- | -- | 1 | -- | -- | -- | -- | -- |
| DICHLOROACETONITRILE | µg/L | -- | 3 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| TRICHLOROACETONITRILE | µg/L | -- | 3 | 0% | -- | -- | 1 | -- | -- | -- | -- | -- |
| ETHYLENE GLYCOL | mg/L | -- | 3 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| TPH-GASOLINE | mg/L | -- | 4 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| BOLSTAR | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| CHLORPYRIFOS | µg/L | -- | 3 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| COUMAPHOS | µg/L | -- | 3 | 0% | -- | -- | 0.1 | -- | -- | -- | -- | -- |
| DEMETON | µg/L | -- | 3 | 0% | -- | -- | 0.1 | -- | -- | -- | -- | -- |
| DIAZINON | µg/L | -- | 3 | 0% | -- | -- | 0.025 | -- | -- | -- | 6 | 6 |
| DICHLORVOS | µg/L | -- | 3 | 0% | -- | -- | 0.1 | -- | -- | -- | 1 | 1 |
| DIMETHOATE | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| DISULFOTON | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| EPN | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| EPTC | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| ETHION | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| ETHOPROP | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| FENSULFOOTHION | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| FENTHION | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| GUTHION | µg/L | -- | 3 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| MALATHION | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| MERPHOS | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| METHYL PARATHION | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| MEVINPHOS | µg/L | -- | 3 | 0% | -- | -- | 0.35 | -- | -- | -- | -- | -- |
| NALED | µg/L | -- | 3 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PARATHION | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| PHORATE | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| PROWL | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| RONNEL | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| S,S,S-TRIBUTYLPHOSPHOROTHIOATE | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| STIROPHOS | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| SULFOTEP | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| TOKUTHION | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| TRICHLORONATE | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| TRIFLURALIN | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |

TABLE 3-11

Estimated Water Quality of Arroyo Well Based on JPL Monitoring Wells

Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|--|------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| 2,4,5-T | µg/L | -- | 3 | 0% | -- | -- | 0.112 | -- | -- | -- | -- | -- |
| 2,4,5-TP | µg/L | -- | 3 | 0% | -- | -- | 0.05 | 50 | -- | -- | -- | 50 |
| 2,4-D | µg/L | -- | 3 | 0% | -- | -- | 0.243 | 70 | -- | 70 | -- | 70 |
| 3,5-DICHLOROBENZOIC ACID | µg/L | -- | 1 | 0% | -- | -- | 0.24 | -- | -- | -- | -- | -- |
| 4-NITROPHENOL | µg/L | -- | 1 | 0% | -- | -- | 0.24 | -- | -- | -- | -- | -- |
| ACIFLUORFEN | µg/L | -- | 1 | 0% | -- | -- | 0.48 | -- | -- | -- | -- | -- |
| BENTAZON | µg/L | -- | 3 | 0% | -- | -- | 0.243 | 18 | -- | 200 | -- | 18 |
| CHLORAMBEN | µg/L | -- | 1 | 0% | -- | -- | 0.24 | -- | -- | -- | -- | -- |
| DACTHAL | µg/L | -- | 3 | 0% | -- | -- | 0.082 | -- | -- | -- | -- | -- |
| DALAPON | µg/L | -- | 3 | 0% | -- | -- | 0.487 | 200 | -- | 790 | -- | 200 |
| DICAMBA | µg/L | -- | 3 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| DICHLOROPROP | µg/L | -- | 3 | 0% | -- | -- | 0.243 | -- | -- | -- | -- | -- |
| DINOSEB | µg/L | -- | 3 | 0% | -- | -- | 0.147 | 7 | -- | 14 | -- | 7 |
| MCPA | µg/L | -- | 3 | 0% | -- | -- | 48.667 | -- | -- | -- | -- | -- |
| MCPP | µg/L | -- | 3 | 0% | -- | -- | 48.667 | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | µg/L | -- | 3 | 0% | -- | -- | 0.05 | 1 | -- | 0.4 | -- | 1 |
| PICLORAM | µg/L | -- | 3 | 0% | -- | -- | 0.102 | 500 | -- | 500 | -- | 500 |
| 1,2,4-TRICHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 5 | -- | 5 | -- | 5 |
| 1,2-DICHLOROBENZENE (O-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 600 | -- | 600 | -- | 600 |
| 1,3-DICHLOROBENZENE (M-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 600 | -- |
| 1,4-DICHLOROBENZENE (PARA-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 5 | -- | 6 | -- | 5 |
| 2,4,5-TRICHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2,4,6-TRICHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2,4-DICHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2,4-DIMETHYLPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 100 | 100 |
| 2,4-DINITROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| 2,4-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2,6-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-CHLORONAPHTHALENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-CHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-METHYLNAPHTHALENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-METHYLPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-NITROANILINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-NITROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 3,3'-DICHLOROBENZIDINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 3-NITROANILINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 3/4-METHYLPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4,6-DINITRO-O-CRESOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-BROMOPHENYLPHENYLETHER | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-CHLORO-3-METHYLPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-CHLOROANILINE | µg/L | -- | 8 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| 4-CHLOROPHENYLPHENYLETHER | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-NITROANILINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-NITROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| ACENAPHTHENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| ACENAPHTHYLENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| ACETOPHENONE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| ANILINE | µg/L | -- | 8 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| ANTHRACENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZALDEHYDE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZO (A) ANTHRACENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZO (A) PYRENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 0.2 | -- | 0.004 | -- | 0.2 |
| BENZO (GHI) PERYLENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZO(B & K)FLUORANTHENES | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZOIC ACID | µg/L | -- | 8 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| BENZYL ALCOHOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BIS (2-CHLOROETHYL) ETHER | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BIS (2-CHLOROISOPROPYL) ETHER | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BIS(2-CHLOROETHOXY)METHANE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BIS(2-ETHYLHEXYL)PHTHALATE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 4 | -- | 12 | -- | 4 |
| BUTYLBENZYLPHTHALATE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| CAPROLACTAM | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| CARBAZOLE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| CHRYSENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DI-(2-ETHYLHEXYL)ADIPATE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 400 | -- | -- | -- | 400 |
| DI-N-BUTYLPHTHALATE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DI-N-OCTYLPHTHALATE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIBENZO (A,H) ANTRACENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIBENZOFURAN | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIETHYLPHTHALATE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIMETHYL 2,3,5,6-TETRACHLOROTE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIMETHYLPHTHALATE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| FLUORANTHENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| FLUORENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| HEXAChLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 1 | -- | -- | -- | 1 |
| HEXAChLOROBUTADIENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| HEXAChLOROCYCLOPENTADIENE | µg/L | -- | 8 | 0% | -- | -- | 4 | 50 | -- | 50 | -- | 50 |
| HEXAChLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| INDENO[1,2,3-C,D]PYRENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| ISOPHORONE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| N-NITROSODI-N-PROPYLAMINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| N-NITROSODIMETHYLAMINE (NDMA) | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 0.01 | 0.01 |
| N-NITROSODIPHENYLAMINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |

TABLE 3-11

Estimated Water Quality of Arroyo Well Based on JPL Monitoring Wells

Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|---------------------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| NAPHTHALENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 170 | 170 |
| NITROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 2 | 1 | -- | 0.4 | -- | 1 |
| PHENANTHRENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| PHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 4200 | 4200 |
| PYRENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| PYRIDINE | µg/L | -- | 8 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-HxCDD | PG/L | -- | 2 | 0% | -- | -- | 1.6475 | -- | -- | -- | -- | -- |
| 1,2,3,4,6,7,8-HxCDF | PG/L | -- | 2 | 0% | -- | -- | 0.87 | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8,9-HxCDF | PG/L | -- | 2 | 0% | -- | -- | 1.1425 | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-HxCDD | PG/L | -- | 2 | 0% | -- | -- | 2.18 | -- | -- | -- | -- | -- |
| 1,2,3,4,7,8-HxCDF | PG/L | -- | 2 | 0% | -- | -- | 0.4465 | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-HxCDD | PG/L | -- | 2 | 0% | -- | -- | 2.3825 | -- | -- | -- | -- | -- |
| 1,2,3,6,7,8-HxCDF | PG/L | -- | 2 | 0% | -- | -- | 0.535 | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-HxCDD | PG/L | -- | 2 | 0% | -- | -- | 2.145 | -- | -- | -- | -- | -- |
| 1,2,3,7,8,9-HxCDF | PG/L | -- | 2 | 0% | -- | -- | 0.555 | -- | -- | -- | -- | -- |
| 1,2,3,7,8-PeCDD | PG/L | -- | 2 | 0% | -- | -- | 1.275 | -- | -- | -- | -- | -- |
| 1,2,3,7,8-PeCDF | PG/L | -- | 2 | 0% | -- | -- | 1.4 | -- | -- | -- | -- | -- |
| 2,3,4,6,7,8-HxCDF | PG/L | -- | 2 | 0% | -- | -- | 0.6375 | -- | -- | -- | -- | -- |
| 2,3,4,7,8-PeCDF | PG/L | -- | 2 | 0% | -- | -- | 1.1275 | -- | -- | -- | -- | -- |
| 2,3,7,8-TCDD (DIOXIN) | PG/L | -- | 2 | 0% | -- | -- | 0.8075 | 30 | -- | -- | -- | 30 |
| 2,3,7,8-TCDF | PG/L | -- | 2 | 0% | -- | -- | 0.7175 | -- | -- | -- | -- | -- |
| OCDD | PG/L | -- | 2 | 0% | -- | -- | 2.1075 | -- | -- | -- | -- | -- |
| OCDF | PG/L | -- | 2 | 0% | -- | -- | 1.905 | -- | -- | -- | -- | -- |
| Total HpCDD | PG/L | -- | 2 | 0% | -- | -- | 1.6475 | -- | -- | -- | -- | -- |
| Total HpCDF | PG/L | -- | 2 | 0% | -- | -- | 1.1425 | -- | -- | -- | -- | -- |
| Total HxCDD | PG/L | -- | 2 | 0% | -- | -- | 2.3825 | -- | -- | -- | -- | -- |
| Total HxCDF | PG/L | -- | 2 | 0% | -- | -- | 0.6375 | -- | -- | -- | -- | -- |
| Total PeCDD | PG/L | -- | 2 | 0% | -- | -- | 1.275 | -- | -- | -- | -- | -- |
| Total PeCDF | PG/L | -- | 2 | 0% | -- | -- | 1.4 | -- | -- | -- | -- | -- |
| Total TCDD | PG/L | -- | 2 | 0% | -- | -- | 0.8075 | -- | -- | -- | -- | -- |
| Total TCDF | PG/L | -- | 2 | 0% | -- | -- | 0.7175 | -- | -- | -- | -- | -- |
| 2-BUTANONE (METHYL ETHYL KETONE, MEK) | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| ACETALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.0015 | -- | -- | -- | -- | -- |
| ACETONE | UG/ML | -- | 3 | 0% | -- | -- | 0.005 | -- | -- | -- | -- | -- |
| ACROLEIN | UG/ML | -- | 3 | 0% | -- | -- | 0.005 | -- | -- | -- | -- | -- |
| BENZALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| BUTYRALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| CROTONALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| FORMALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.002 | -- | -- | -- | -- | -- |
| HEXANALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| M-TOLUALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| METHACROLEIN | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| PROPIONALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| VALERALDEHYDE | UG/ML | -- | 3 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| 1,3,5-TRINITROBENZENE (TNB) | µg/L | -- | 8 | 0% | -- | -- | 0.338 | -- | -- | -- | -- | -- |
| 1,3-DINITROBENZENE (DNB) | µg/L | -- | 8 | 0% | -- | -- | 0.338 | -- | -- | -- | -- | -- |
| 2,4-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.338 | -- | -- | -- | -- | -- |
| 2,6-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.394 | -- | -- | -- | -- | -- |
| 2-AMINO-4,6-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.217 | -- | -- | -- | -- | -- |
| 2-NITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.976 | -- | -- | -- | -- | -- |
| 3-NITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.506 | -- | -- | -- | -- | -- |
| 4-AMINO-2,6-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.338 | -- | -- | -- | -- | -- |
| 4-NITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.976 | -- | -- | -- | -- | -- |
| NITROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.338 | -- | -- | -- | -- | -- |
| TETRYL | µg/L | -- | 8 | 0% | -- | -- | 0.341 | -- | -- | -- | -- | -- |

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; CA PHG is not included.

Notes:

µg/L = micrograms per liter
 µg/mL = micrograms per milliliter
 mg/L = milligrams per liter
 NTU = Nephelometric Turbidity Units
 mg O₂/L = milligrams of oxygen per liter
 pCi/L = picocuries per liter
 pg/L = picograms per liter

(1) presence of methylene chloride has been attributed to laboratory contamination.

1/2 of the detection limit was used for nondetected values when calculating the arithmetic mean, geometric mean, standard deviation, and 95% upper confidence limit.

TABLE 3-12

Estimated Water Quality of Well 52 Based on JPL Monitoring Wells
Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|---|---------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| HARDNESS (TOTAL) AS CACO3 | mg/L | 4 | 4 | 100% | 92.95 | 564 | 400.238 | -- | -- | -- | -- | -- |
| TOTAL DISSOLVED SOLIDS (TDS) | mg/L | 8 | 8 | 100% | 182 | 967 | 461.625 | -- | 1000 | -- | -- | 1000 |
| TURBIDITY | NTU | 7 | 7 | 100% | 2.2 | 38 | 12.014 | -- | 5 | -- | -- | 5 |
| CHLORIDE | mg/L | 8 | 8 | 100% | 11.75 | 141 | 56.270 | -- | 500 | -- | -- | 500 |
| SULFATE (SO4-) | mg/L | 8 | 8 | 100% | 14.5 | 189 | 76.725 | -- | 500 | -- | -- | 500 |
| ALKALINITY | mg/L | 4 | 4 | 100% | 147 | 240 | 209.750 | -- | -- | -- | -- | -- |
| BIOLOGIC OXYGEN DEMAND | mg O2/L | 4 | 4 | 100% | 0.73 | 2 | 1.358 | -- | -- | -- | -- | -- |
| PH | UNIT | 8 | 8 | 100% | 6.77 | 8.37 | 7.650 | -- | -- | -- | -- | -- |
| ALPHA, GROSS | PCI/L | 5 | 5 | 100% | 1.54 | 9.76 | 3.824 | 15 | -- | -- | -- | 15 |
| BETA, GROSS | PCI/L | 5 | 5 | 100% | 2.09 | 9.16 | 4.209 | 50 | -- | -- | -- | 50 |
| ARSENIC | µg/L | 7 | 8 | 88% | 0.5 | 2.8 | 1.230 | 50 | -- | -- | -- | 50 |
| BORON | µg/L | 7 | 8 | 88% | 41.1 | 242 | 118.790 | -- | -- | -- | 1000 | 1000 |
| CHROMIUM | µg/L | 7 | 8 | 88% | 1.6 | 7.2 | 3.510 | 50 | -- | -- | -- | 50 |
| MANGANESE | µg/L | 7 | 8 | 88% | 0.3 | 85.2 | 13.140 | -- | 50 | -- | 500 | 50 |
| VANADIUM | µg/L | 7 | 8 | 88% | 1.3 | 11.5 | 6.860 | -- | -- | -- | 50 | 50 |
| FLUORIDE | mg/L | 7 | 8 | 88% | 0.75 | 2 | 1.370 | 2 | -- | 1 | -- | 2 |
| NITRATE - NO3 | mg/L | 7 | 8 | 88% | 0.29 | 17.4 | 5.550 | 45 | -- | 10 | -- | 45 |
| N-NITROSODIPHENYLAMINE | µg/L | 7 | 8 | 88% | 0.001 | 0.003 | 0.002 | -- | -- | -- | -- | -- |
| MERCURY | µg/L | 8 | 8 | 86% | 0.041 | 0.1 | 0.077 | 2 | -- | 1.2 | -- | 2 |
| COLOR | COLOR | 6 | 8 | 75% | 5 | 25 | 6.375 | -- | 15 | -- | -- | 15 |
| BARIUM | µg/L | 6 | 8 | 75% | 15.7 | 170 | 64.975 | 1000 | -- | -- | -- | 1000 |
| CALCIUM | µg/L | 6 | 8 | 75% | 17700 | 141000 | 58256 | -- | -- | -- | -- | -- |
| COBALT | µg/L | 6 | 8 | 75% | 0.046 | 0.2 | 0.084 | -- | -- | -- | -- | -- |
| COPPER | µg/L | 6 | 8 | 75% | 0.7 | 2.6 | 0.994 | -- | 1000 | 170 | 1300 | 1000 |
| LEAD | µg/L | 6 | 8 | 75% | 0.058 | 0.3 | 0.113 | -- | -- | 2 | 15 | -- |
| MAGNESIUM | µg/L | 6 | 8 | 75% | 7905 | 46700 | 21882 | -- | -- | -- | -- | -- |
| NICKEL | µg/L | 6 | 8 | 75% | 0.5 | 5.7 | 1.720 | 100 | -- | 12 | -- | 100 |
| POTASSIUM | µg/L | 6 | 8 | 75% | 1995 | 3240 | 2249 | -- | -- | -- | -- | -- |
| SODIUM | µg/L | 6 | 8 | 75% | 23200 | 42950 | 29713 | -- | -- | -- | -- | -- |
| TOTAL ORGANIC CARBON | mg/L | 3 | 4 | 75% | 1.055 | 6.4 | 2.914 | -- | -- | -- | -- | -- |
| CHLOROFORM | µg/L | 6 | 8 | 75% | 0.4 | 2.9 | 0.875 | 100 | -- | -- | -- | 100 |
| TRICHLOROETHENE (TCE) | µg/L | 6 | 8 | 75% | 0.600 | 7.6 | 2.469 | 5 | -- | 0.8 | -- | 5 |
| CHLORATE | mg/L | 5 | 8 | 63% | 0.073 | 0.875 | 0.335 | -- | -- | -- | -- | -- |
| TETRACHLOROETHENE (PCE) | µg/L | 5 | 8 | 63% | 0.3 | 1.5 | 0.569 | 5 | -- | 0.06 | -- | 5 |
| BERYLLIUM | µg/L | 4 | 8 | 50% | 0.9 | 1.8 | 0.656 | 4 | -- | -- | -- | 4 |
| ZINC | µg/L | 4 | 8 | 50% | 3.7 | 20.1 | 10.960 | -- | 5000 | -- | -- | 5000 |
| CHLOROFORM | µg/L | 1 | 2 | 50% | 1.8 | 1.8 | 1.025 | 100 | -- | -- | -- | 100 |
| TOTAL TRIHALOMETHANES | µg/L | 1 | 2 | 50% | 1.9 | 1.9 | 1.075 | 100 | -- | -- | -- | 100 |
| N-NITROSODIMETHYLAMINE (NDMA) | µg/L | -- | 8 | 50% | -- | -- | 0.001 | -- | -- | -- | 0.01 | 0.01 |
| METHYLENE CHLORIDE (DICHLOROMETHANE) ⁽¹⁾ | µg/L | 3 | 7 | 43% | 5.8 | 79.5 | 24.730 | 5 | -- | 4 | -- | 5 |
| ALUMINUM | µg/L | 3 | 8 | 38% | 1.2 | 1.6 | 11.556 | 1000 | 200 | 600 | -- | 1000 |
| ANTIMONY | µg/L | 3 | 8 | 38% | 0.2 | 0.5 | 0.175 | 6 | -- | 20 | -- | 6 |
| SELENIUM | µg/L | 3 | 8 | 38% | 0.6 | 1.9 | 0.556 | 50 | -- | -- | -- | 50 |
| CHROMIUM (VI) | mg/L | 3 | 8 | 38% | 0.00066 | 0.0027 | 0.0008 | -- | -- | 0.0002 | -- | -- |
| 1,1-DICHLOROETHANE | µg/L | 3 | 8 | 38% | 0.4 | 0.5 | 0.269 | 5 | -- | -- | -- | 5 |
| 1,4-DIOXANE | µg/L | 3 | 8 | 38% | 1 | 1.2 | 0.718 | -- | -- | -- | 3 | 3 |
| IRON | µg/L | 2 | 8 | 25% | 49.9 | 197 | 40.24 | -- | 300 | -- | -- | 300 |
| PERCHLORATE | µg/L | 2 | 8 | 25% | 3.05 | 115 | 16.256 | -- | -- | -- | 6 | 6 |
| TPH-DIESEL | µg/L | 1 | 4 | 25% | 0.01 | 0.01 | 0.368 | -- | -- | -- | -- | -- |
| TPH-MOTOR OILS | µg/L | 1 | 4 | 25% | 0.09 | 0.09 | 0.388 | -- | -- | -- | -- | -- |
| FOAMING AGENTS (MBAS) | mg/L | 1 | 7 | 14% | 0.062 | 0.062 | 0.030 | -- | 0.5 | -- | -- | 0.5 |
| SILVER | µg/L | 1 | 8 | 13% | 0.024 | 0.024 | 0.091 | -- | 100 | -- | -- | 100 |
| THALLIUM | µg/L | 1 | 8 | 13% | 0.053 | 0.053 | 0.094 | 2 | -- | 0.1 | -- | 2 |
| 1,1-DICHLOROETHENE | µg/L | 1 | 8 | 13% | 0.3 | 0.3 | 0.256 | 6 | -- | 10 | -- | 6 |
| BROMOCHLOROMETHANE | µg/L | 1 | 8 | 13% | 18 | 18 | 2.69 | -- | -- | -- | -- | -- |
| CARBON TETRACHLORIDE | µg/L | 1 | 8 | 13% | 12.5 | 12.5 | 1.713 | 0.5 | -- | 0.1 | -- | 0.5 |
| 2,4,6-TRINITROTOLUENE (TNT) | µg/L | 1 | 8 | 13% | 4.5 | 4.5 | 0.611 | -- | -- | -- | -- | -- |
| RDX | µg/L | 1 | 8 | 13% | 3.1 | 3.1 | 0.475 | -- | -- | -- | -- | -- |
| CADMIUM | µg/L | -- | 8 | 0% | -- | -- | 0.1 | 5 | -- | 0.07 | -- | 5 |
| BROMIDE | µg/L | -- | 8 | 0% | -- | -- | 0.869 | -- | -- | -- | -- | -- |
| NITRITE (AS N) | mg/L | -- | 8 | 0% | -- | -- | 0.353 | 1 | -- | 0.001 | -- | 1 |
| CYANIDE | mg/L | -- | 8 | 0% | -- | -- | 0.012 | 0.15 | -- | 0.15 | -- | 0.15 |
| CHEMICAL OXYGEN DEMAND | mg O2/L | -- | 4 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| 1,2,3-TRICHLOROPROPANE | µg/L | -- | 4 | 0% | -- | -- | 0.0025 | -- | -- | -- | 0.005 | 0.005 |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE, EDB) | µg/L | -- | 4 | 0% | -- | -- | 0.01 | 0.05 | -- | -- | -- | 0.05 |
| DI(BROMOCHLOROPROPANE (DBCP) | µg/L | -- | 4 | 0% | -- | -- | 0.01 | 0.2 | -- | 0.0017 | -- | 0.2 |
| ALACHLOR | µg/L | -- | 1 | 0% | -- | -- | 0.25 | 2 | -- | 4 | -- | 2 |
| ATRAZINE | µg/L | -- | 1 | 0% | -- | -- | 0.25 | 1 | -- | 0.15 | -- | 1 |
| BROMACIL | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BUTACHLOR | µg/L | -- | 1 | 0% | -- | -- | 0.19 | -- | -- | -- | -- | -- |
| DEMETON | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| DAZINON | µg/L | -- | 1 | 0% | -- | -- | 0.125 | -- | -- | -- | 6 | 6 |
| DIMETHOATE | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | 1 | 1 |
| DISULFOTON | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| METOLACHLOR | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| METRIBUZIN | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| MEVINPHOS | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| MOLINATE | µg/L | -- | 1 | 0% | -- | -- | 0.25 | 20 | -- | -- | -- | 20 |
| PROMETON | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PROMETRYN | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PRONAMIDE | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| SIMAZINE | µg/L | -- | 1 | 0% | -- | -- | 0.25 | 4 | -- | 4 | -- | 4 |

TABLE 3-12

Estimated Water Quality of Well 52 Based on JPL Monitoring Wells
Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|---|------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| SIMETRYN | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| TERBUTRYN | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| THIOBENCARB | µg/L | -- | 1 | 0% | -- | -- | 0.25 | 70 | 1 | 70 | -- | 70 |
| 2,4'-DDD | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| 2,4'-DDE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| 2,4'-DDT | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | -- | -- |
| 4,4'-DDD | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | -- | -- |
| 4,4'-DDE | µg/L | -- | 8 | 0% | -- | -- | 0.005 | -- | -- | -- | -- | -- |
| 4,4'-DDT | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | -- | -- |
| ALACHLOR | µg/L | -- | 8 | 0% | -- | -- | 0.05 | 2 | -- | 4 | -- | 2 |
| ALDRIN | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | 0.002 | 0.002 |
| ALPHA-BHC | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | 0.015 | 0.015 |
| BENFLURALIN | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| BETA-BHC | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | 0.025 | 0.025 |
| CAPTAN | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | 1.5 | 1.5 |
| CARBOPHENOTHION | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| CHLORDANE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 0.1 | -- | 0.03 | -- | 0.1 |
| CHLOROTHALONIL | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| DELTA-BHC | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | 0.025 | 0.025 |
| DICOFOL | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| DIELDRIN | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | 0.002 | 0.002 |
| DMPA | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| ENDOSULFAN I | µg/L | -- | 8 | 0% | -- | -- | 0.01 | -- | -- | -- | -- | -- |
| ENDOSULFAN II | µg/L | -- | 8 | 0% | -- | -- | 0.005 | -- | -- | -- | -- | -- |
| ENDOSULFAN SULFATE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| ENDRIN | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 2 | -- | 1.8 | -- | 2 |
| ENDRIN ALDEHYDE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| ENDRIN KETONE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| GAMMA- BHC (LINDANE) | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 0.2 | -- | 0.032 | -- | 0.2 |
| HEPTACHLOR | µg/L | -- | 8 | 0% | -- | -- | 0.005 | 0.01 | -- | 0.008 | -- | 0.01 |
| HEPTACHLOR EPOXIDE | µg/L | -- | 8 | 0% | -- | -- | 0.005 | 0.01 | -- | 0.006 | -- | 0.01 |
| HEXACHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 1 | -- | -- | -- | 1 |
| METHOXYPHENYLCHLORINE | µg/L | -- | 8 | 0% | -- | -- | 0.025 | 30 | -- | 30 | -- | 30 |
| NITROFEN | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| PCB-1016 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1221 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1232 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1242 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1248 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1254 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCB-1260 | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PCNB | µg/L | -- | 8 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| PROPACHLOR | µg/L | -- | 8 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| TOXAPHENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 3 | -- | -- | -- | 3 |
| 1,1,1,2-TETRACHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| 1,1,1-TRICHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 200 | -- | -- | -- | 200 |
| 1,1,2,2-TETRACHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 1 | -- | -- | -- | 1 |
| 1,1,2-TRICHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | -- | -- | 5 |
| 1,1,2-TRICHLOROTRIFLUOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 1200 | -- | 4000 | -- | 1200 |
| 1,2,3-TRICHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| 1,2,4-TRICHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | 5 | -- | 5 |
| 1,2,4-TRIMETHYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 330 | 330 |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE, EDB) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 0.05 | -- | -- | -- | 0.05 |
| 1,2-DICHLOROBENZENE (O-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 600 | -- | 600 | -- | 600 |
| 1,2-DICHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | 0.4 | -- | 5 |
| 1,2-DICHLOROPROPANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | 0.5 | -- | 5 |
| 1,3,5-TRIMETHYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 330 | 330 |
| 1,3-DICHLOROPROPANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| 1,4-DICHLOROBENZENE (PARA-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 5 | -- | 6 | -- | 5 |
| 2,2-DICHLOROPROPANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| 2-BUTANONE (METHYL ETHYL KETONE, MEK) | µg/L | -- | 8 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| 2-CHLOROETHYL VINYL ETHER | µg/L | -- | 8 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| 2-CHLOROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 140 | 140 |
| 2-HEXANONE | µg/L | -- | 8 | 0% | -- | -- | 1 | -- | -- | -- | -- | -- |
| 4-CHLOROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 140 | 140 |
| 4-METHYL-2-PENTANONE (MIBK) | µg/L | -- | 8 | 0% | -- | -- | 2.5 | -- | -- | -- | 120 | 120 |
| ACETONE | µg/L | -- | 8 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| ACROLEIN | µg/L | -- | 8 | 0% | -- | -- | 25 | -- | -- | -- | -- | -- |
| ACRYLONITRILE | µg/L | -- | 8 | 0% | -- | -- | 5 | -- | -- | -- | -- | -- |
| BENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 1 | -- | 0.15 | -- | 1 |
| BROMOBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BROMODICHLOROMETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BROMOFORM | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| BROMOMETHANE (METHYL BROMIDE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| CARBON DISULFIDE | µg/L | -- | 8 | 0% | -- | -- | 1 | -- | -- | -- | 160 | 160 |
| CHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 70 | -- | -- | -- | 70 |
| CHLORODIBROMOMETHANE (THM) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| CHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| CHLOROMETHANE (METHYL CHLORIDE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| CIS-1,2-DICHLOROETHENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 6 | -- | -- | -- | 6 |
| CIS-1,3-DICHLOROPROPENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| DI-ISOPROPYL ETHER | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| DIBROMOMETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |

TABLE 3-12

Estimated Water Quality of Well 52 Based on JPL Monitoring Wells
Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|-------------------------------------|------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| DICHLORODIFLUOROMETHANE (FREON 112) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 1000 | 1000 |
| ETHYL-TERT-BUTYL ETHER (ETBE) | µg/L | -- | 8 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| ETHYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 300 | -- | 300 | -- | 300 |
| HEXACHLOROBUTADIENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| ISOPROPYLBENZENE (CUMENE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 770 | 770 |
| M-XYLENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| METHYL ACETATE | µg/L | -- | 8 | 0% | -- | -- | 5 | -- | -- | -- | -- | -- |
| METHYL-T-BUTYL ETHER (MTBE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 13 | 5 | 13 | -- | 5 |
| N-BUTYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 260 | 260 |
| N-PROPYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 260 | 260 |
| NAPHTHALENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 17 | 17 |
| O-XYLENE | µg/L | -- | 8 | 0% | -- | -- | 0.1 | 1750 | -- | -- | -- | 1750 |
| P-ISOPROPYLTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| SEC-BUTYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 260 | 260 |
| STYRENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 100 | -- | -- | -- | 100 |
| TERT-AMYL-METHYL ETHER (TAME) | µg/L | -- | 8 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| TERT-BUTYLBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | -- | -- | -- | 260 | 260 |
| TERTARY BUTYL ALCOHOL (TBA) | µg/L | -- | 8 | 0% | -- | -- | 1.8 | -- | -- | -- | 12 | 12 |
| TETRAHYDROFURAN | µg/L | -- | 8 | 0% | -- | -- | 1.100 | -- | -- | -- | -- | -- |
| TOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.250 | 150 | -- | 150 | -- | 150 |
| TRANS-1,2-DICHLOROETHENE | µg/L | -- | 8 | 0% | -- | -- | 0.250 | 10 | -- | -- | -- | 10 |
| TRANS-1,3-DICHLOROPROPENE | µg/L | -- | 8 | 0% | -- | -- | 0.250 | -- | -- | -- | -- | -- |
| TRICHLOROFLUOROMETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 150 | -- | 700 | -- | 150 |
| VINYL ACETATE | µg/L | -- | 8 | 0% | -- | -- | 1 | -- | -- | -- | -- | -- |
| VINYL CHLORIDE (CHLOROETHANE) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 0.5 | -- | 0.05 | -- | 0.5 |
| XYLEMES (TOTAL) | µg/L | -- | 8 | 0% | -- | -- | 0.25 | 1750 | -- | 1800 | -- | 1750 |
| 3-HYDROXYCARBOFURAN | µg/L | -- | 1 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| ALDICARB | µg/L | -- | 1 | 0% | -- | -- | 1.5 | -- | -- | -- | 7 | 7 |
| ALDICARB SULFONE | µg/L | -- | 1 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| ALDICARB SULFOXIDE | µg/L | -- | 1 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| CARBARYL | µg/L | -- | 1 | 0% | -- | -- | 2.5 | -- | -- | -- | 700 | 700 |
| CARBOFURAN | µg/L | -- | 1 | 0% | -- | -- | 2.5 | 18 | -- | 1.7 | -- | 18 |
| METHIOCARB | µg/L | -- | 1 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| METHOMYL | µg/L | -- | 1 | 0% | -- | -- | 1 | -- | -- | -- | -- | -- |
| OXAMYL | µg/L | -- | 1 | 0% | -- | -- | 2.5 | 50 | -- | 50 | -- | 50 |
| PROPOXUR | µg/L | -- | 1 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| GLYPHOSATE | µg/L | -- | 1 | 0% | -- | -- | 5 | 700 | -- | 1000 | -- | 700 |
| ENDOTHALL | µg/L | -- | 1 | 0% | -- | -- | 2.5 | 100 | -- | 580 | -- | 100 |
| DIQUAT | µg/L | -- | 1 | 0% | -- | -- | 0.2 | 20 | -- | 15 | -- | 20 |
| PARAQUAT | µg/L | -- | 1 | 0% | -- | -- | 0.2 | -- | -- | -- | -- | -- |
| 1,1,1-TRICHLORO-2-PROPANONE | µg/L | -- | 2 | 0% | -- | -- | 0.33 | -- | -- | -- | -- | -- |
| 1,1-DICHLOROPROPANONE | µg/L | -- | 2 | 0% | -- | -- | 0.303 | -- | -- | -- | -- | -- |
| BROMOCHLOROACETONITRILE | µg/L | -- | 2 | 0% | -- | -- | 1.7 | -- | -- | -- | -- | -- |
| BROMODICHLOROMETHANE | µg/L | -- | 2 | 0% | -- | -- | 0.193 | -- | -- | -- | -- | -- |
| BROMOFORM | µg/L | -- | 2 | 0% | -- | -- | 0.19 | -- | -- | -- | -- | -- |
| CHLORODIBROMOMETHANE (THM) | µg/L | -- | 2 | 0% | -- | -- | 0.178 | -- | -- | -- | -- | -- |
| CHLOROPICRIN | µg/L | -- | 2 | 0% | -- | -- | 0.335 | -- | -- | -- | 56 | 56 |
| DIBROMOACETONITRILE | µg/L | -- | 2 | 0% | -- | -- | 0.623 | -- | -- | -- | -- | -- |
| DICHLOROACETONITRILE | µg/L | -- | 2 | 0% | -- | -- | 0.303 | -- | -- | -- | -- | -- |
| TRICHLOROACETONITRILE | µg/L | -- | 2 | 0% | -- | -- | 0.703 | -- | -- | -- | -- | -- |
| ETHYLENE GLYCOL | mg/L | -- | 2 | 0% | -- | -- | 2.5 | -- | -- | -- | -- | -- |
| TPH-GASOLINE | mg/L | -- | 4 | 0% | -- | -- | 0.044 | -- | -- | -- | -- | -- |
| BOLSTAR | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| CHLORPYRIFOS | µg/L | -- | 1 | 0% | -- | -- | 0.025 | -- | -- | -- | -- | -- |
| COUMAPHOS | µg/L | -- | 1 | 0% | -- | -- | 0.1 | -- | -- | -- | -- | -- |
| DEMETON | µg/L | -- | 1 | 0% | -- | -- | 0.1 | -- | -- | -- | -- | -- |
| DIAZINON | µg/L | -- | 1 | 0% | -- | -- | 0.025 | -- | -- | -- | 6 | 6 |
| DICHLORVOS | µg/L | -- | 1 | 0% | -- | -- | 0.1 | -- | -- | -- | -- | -- |
| DIMETHOATE | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | 1 | 1 |
| DISULFOTON | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| EPN | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| EPTC | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| ETHION | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| ETHOPROP | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| FENSULFOOTHION | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| FENTHION | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| GUTHION | µg/L | -- | 1 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| MALATHION | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| MERPHOS | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| METHYL PARATHION | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| MEVINPHOS | µg/L | -- | 1 | 0% | -- | -- | 0.35 | -- | -- | -- | -- | -- |
| NALED | µg/L | -- | 1 | 0% | -- | -- | 0.25 | -- | -- | -- | -- | -- |
| PARATHION | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| PHORATE | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| PROWL | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| RONNEL | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| S,S,S-TRIBUTYLPHOSPHOROTRITHIOATE | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| STIROPHOS | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| SULFOTEPP | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| TOKUTHION | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| TRICHLORONATE | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| TRIFLURALIN | µg/L | -- | 1 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| 2,4,5-T | µg/L | -- | 2 | 0% | -- | -- | 0.1125 | -- | -- | -- | -- | -- |

TABLE 3-12

Estimated Water Quality of Well 52 Based on JPL Monitoring Wells
Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|--|------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| 2,4,5-TP | µg/L | -- | 2 | 0% | -- | -- | 0.05 | 50 | -- | -- | -- | 50 |
| 2,4-D | µg/L | -- | 2 | 0% | -- | -- | 0.245 | 70 | -- | 70 | -- | 70 |
| 3,5-DICHLOROBENZOIC ACID | µg/L | -- | 2 | 0% | -- | -- | 0.245 | -- | -- | -- | -- | -- |
| 4-NITROPHENOL | µg/L | -- | 2 | 0% | -- | -- | 0.245 | -- | -- | -- | -- | -- |
| ACIFLUORFEN | µg/L | -- | 2 | 0% | -- | -- | 0.490 | -- | -- | -- | -- | -- |
| BENTAZON | µg/L | -- | 2 | 0% | -- | -- | 0.245 | 18 | -- | 200 | -- | 18 |
| CHLORAMBEN | µg/L | -- | 2 | 0% | -- | -- | 0.245 | -- | -- | -- | -- | -- |
| DACTHAL | µg/L | -- | 2 | 0% | -- | -- | 0.083 | -- | -- | -- | -- | -- |
| DALAPON | µg/L | -- | 2 | 0% | -- | -- | 0.490 | 200 | -- | 790 | -- | 200 |
| DICAMBA | µg/L | -- | 2 | 0% | -- | -- | 0.05 | -- | -- | -- | -- | -- |
| DICHLOROPROP | µg/L | -- | 2 | 0% | -- | -- | 0.245 | -- | -- | -- | -- | -- |
| DINOSEB | µg/L | -- | 2 | 0% | -- | -- | 0.148 | 7 | -- | 14 | -- | 7 |
| MCPA | µg/L | -- | 2 | 0% | -- | -- | 49,000 | -- | -- | -- | -- | -- |
| MCPP | µg/L | -- | 2 | 0% | -- | -- | 49,000 | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | µg/L | -- | 2 | 0% | -- | -- | 0.05 | 1 | -- | 0.4 | -- | 1 |
| PICLORAM | µg/L | -- | 2 | 0% | -- | -- | 0.103 | 500 | -- | 500 | -- | 500 |
| 1,2,4-TRICHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 5 | -- | 5 | -- | 5 |
| 1,2-DICHLOROBENZENE (O-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 600 | -- | 600 | -- | 600 |
| 1,3-DICHLOROBENZENE (M-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 600 | 600 |
| 1,4-DICHLOROBENZENE (PARA-DICHLOROBENZENE) | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 5 | -- | 6 | -- | 5 |
| 2,4,5-TRICHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2,4,6-TRICHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2,4-DICHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2,4-DIMETHYLPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 100 | 100 |
| 2,4-DINITROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| 2,4-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2,6-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-CHLORONAPHTHALENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-CHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-METHYLNAPHTHALENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-METHYLPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-NITROANILINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 2-NITROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 3,3'-DICHLOROBENZIDINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 3-NITROANILINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 3,4-METHYLPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4,6-DINITRO-O-CRESOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-BROMOPHENYLPHENYLETHER | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-CHLORO-3-METHYLPHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-CHLOROANILINE | µg/L | -- | 8 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| 4-CHLOROPHENYLPHENYLETHER | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-NITROANILINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| 4-NITROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| ACENAPHTHENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| ACENAPHTHYLENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| ACETOPHENONE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| ANILINE | µg/L | -- | 8 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| ANTHRACENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZALDEHYDE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZO (A) ANTHRACENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZO (A) PYRENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 0.2 | -- | 0.004 | -- | 0.2 |
| BENZO (G,H) PERYLENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZO(B & K)FLUORANTHENES | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BENZOIC ACID | µg/L | -- | 8 | 0% | -- | -- | 2 | -- | -- | -- | -- | -- |
| BENZYL ALCOHOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BIS (2-CHLOROETHYL) ETHER | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BIS (2-CHLOROISOPROPYL) ETHER | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BIS(2-CHLOROETHOXY)METHANE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| BIS(2-ETHYLHEXYL)PHthalate | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 4 | -- | 12 | -- | 4 |
| BUTYLBENZYLPHthalate | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| CAPROLACTAM | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| CARBAZOLE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| CHRYSENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DI-(2-ETHYLHEXYL)ADIPATE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 400 | -- | -- | -- | 400 |
| DI-N-BUTYLPHthalate | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DI-N-OCTYLPHthalate | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIBENZO (A,H) ANTRACENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIBENZOFURAN | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIETHYLPHthalate | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIMETHYL 2,3,5,6-TETRAChLOROTE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| DIMETHYLPHthalate | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| FLUORANTHENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| FLUORENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| HEXACHLOROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | 1 | -- | -- | -- | 1 |
| HEXACHLOROBUTADIENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| HEXACHLOROCYCLOPENTADIENE | µg/L | -- | 8 | 0% | -- | -- | 4 | 50 | -- | 50 | -- | 50 |
| HEXACHLOROETHANE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| INDENO(1,2,3-C,D)PYRENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| ISOPHORONE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| N-NITROSODI-N-PROPYLAMINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| N-NITROSODIMETHYLAMINE (NDMA) | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 0.01 | 0.01 |
| N-NITROSODIPHENYLAMINE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| NAPHTHALENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 170 | 170 |

TABLE 3-12

Estimated Water Quality of Well 52 Based on JPL Monitoring Wells
Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Number of Detects | Number of Samples | Frequency of Detection | Minimum Detected Value | Maximum Detected Value | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level | Applicable Standard* |
|---------------------------------------|-------|-------------------|-------------------|------------------------|------------------------|------------------------|-----------------|----------------|------------------|--------|------------------|----------------------|
| NITROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| PENTACHLOROPHENOL | µg/L | -- | 8 | 0% | -- | -- | 2 | 1 | -- | 0.4 | -- | 1 |
| PHENANTHRENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| PHENOL | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | 4200 | 4200 |
| PYRENE | µg/L | -- | 8 | 0% | -- | -- | 0.5 | -- | -- | -- | -- | -- |
| PYRIDINE | µg/L | -- | 8 | 0% | -- | -- | 1.5 | -- | -- | -- | -- | -- |
| 2-BUTANONE (METHYL ETHYL KETONE, MEK) | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| ACETALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.0015 | -- | -- | -- | -- | -- |
| ACETONE | UG/ML | -- | 2 | 0% | -- | -- | 0.005 | -- | -- | -- | -- | -- |
| ACROLEIN | UG/ML | -- | 2 | 0% | -- | -- | 0.005 | -- | -- | -- | -- | -- |
| BENZALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| BUTYRALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| CROTONALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| FORMALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.002 | -- | -- | -- | -- | -- |
| HEXANALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| M-TOLUALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| METHACROLEIN | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| PROPIONALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| VALERALDEHYDE | UG/ML | -- | 2 | 0% | -- | -- | 0.015 | -- | -- | -- | -- | -- |
| 1,3,5-TRINITROBENZENE (TNB) | µg/L | -- | 8 | 0% | -- | -- | 0.100 | -- | -- | -- | -- | -- |
| 1,3-DINITROBENZENE (DNB) | µg/L | -- | 8 | 0% | -- | -- | 0.100 | -- | -- | -- | -- | -- |
| 2,4-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.100 | -- | -- | -- | -- | -- |
| 2,6-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.165 | -- | -- | -- | -- | -- |
| 2-AMINO-4,6-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.105 | -- | -- | -- | -- | -- |
| 2-NITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.330 | -- | -- | -- | -- | -- |
| 3-NITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.150 | -- | -- | -- | -- | -- |
| 4-AMINO-2,6-DINITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.100 | -- | -- | -- | -- | -- |
| 4-NITROTOLUENE | µg/L | -- | 8 | 0% | -- | -- | 0.330 | -- | -- | -- | -- | -- |
| HMX | µg/L | -- | 8 | 0% | -- | -- | 0.250 | -- | -- | -- | -- | -- |
| NITROBENZENE | µg/L | -- | 8 | 0% | -- | -- | 0.100 | -- | -- | -- | -- | -- |
| TTRYL | µg/L | -- | 8 | 0% | -- | -- | 0.075 | -- | -- | -- | -- | -- |
| N-NITROSODI-N-PROPYLAMINE | µg/L | -- | 8 | 0% | -- | -- | 0.003 | -- | -- | -- | -- | -- |

* The Applicable Regulatory Limit is the regulatory limit with the lowest concentration; CA PHG is not included.

Notes:

µg/L = micrograms per liter

µg/mL = micrograms per milliliter

mg/L = milligrams per liter

NTU = Nephelometric Turbidity Units

mg O2/L = milligrams of oxygen per liter

pCi/L = picocuries per liter

pg/L = picograms per liter

(1) presence of methylene chloride has been attributed to laboratory contamination.

1/2 of the detection limit was used for nondetected values when calculating the arithmetic mean, geometric mean, standard deviation, and 95% upper confidence limit.

TABLE 3-13

Chemical Concentrations Estimated to be Present in the Influent to Water Treatment Plant for the Arroyo Well and Well
Estimated from the Comprehensive Groundwater Monitoring Event (Dec 2002-Feb 2003)

| Analyte | Unit | Estimated Influent Concentration ⁽¹⁾ | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level |
|--|----------------------|---|----------------|------------------|--------|------------------|
| Analytes Detected that Exceed MCLs or ALs | | | | | | |
| PERCHLORATE | µg/L | 20.3 | -- | -- | 6 | 6 |
| 1,2,3-TRICHLOROPROPANE | µg/L | 0.01 | -- | -- | -- | 0.005 |
| CARBON TETRACHLORIDE | µg/L | 2.86 | 0.5 | -- | 0.1 | -- |
| TURBIDITY | NTU | 8.61 | -- | 5 | -- | -- |
| Analytes Detected that do not Exceed MCLs or ALs, or do not have MCLs or ALs | | | | | | |
| COLOR | COLOR | 5.7190 | -- | 15 | -- | -- |
| HARDNESS (TOTAL) AS CACO ₃ | mg/L | 297 | -- | -- | -- | -- |
| TOTAL DISSOLVED SOLIDS (TDS) | mg/L | 388 | -- | 1000 | -- | -- |
| ALUMINUM | µg/L | 11.6700 | 1000 | 200 | 600 | -- |
| ANTIMONY | µg/L | 0.3030 | 6 | -- | 20 | -- |
| ARSENIC | µg/L | 1.0780 | 50 | -- | 0.004 | -- |
| BARIUM | µg/L | 68.8400 | 1000 | -- | 2000 | -- |
| BERYLLIUM | µg/L | 0.4344 | 4 | -- | 1 | -- |
| BORON | µg/L | 115 | -- | -- | -- | 1000 |
| CADMIUM | µg/L | 0.0935 | 5 | -- | 0.07 | -- |
| CALCIUM | µg/L | 53941 | -- | -- | -- | -- |
| CHROMIUM | µg/L | 3.1910 | 50 | -- | -- | -- |
| COBALT | µg/L | 0.0838 | -- | -- | -- | -- |
| COPPER | µg/L | 1.4070 | -- | 1000 | 170 | 1300 |
| IRON | µg/L | 119 | -- | 300 | -- | -- |
| LEAD | µg/L | 0.1930 | -- | -- | 2 | 15 |
| MAGNESIUM | µg/L | 19454 | -- | -- | -- | -- |
| MANGANESE | µg/L | 12.4900 | -- | 50 | -- | 500 |
| METHYLENE CHLORIDE (DICHLOROMETHANE) ⁽²⁾ | µg/L | 0.50 | 5 | -- | 4 | -- |
| NICKEL | µg/L | 1.8620 | 100 | -- | 12 | -- |
| POTASSIUM | µg/L | 2534 | -- | -- | -- | -- |
| SELENIUM | µg/L | 0.6281 | 50 | -- | -- | -- |
| SILVER | µg/L | 0.0953 | -- | 100 | -- | -- |
| SODIUM | µg/L | 29081 | -- | -- | -- | -- |
| THALLIUM | µg/L | 0.0966 | 2 | -- | 0.1 | -- |
| VANADIUM | µg/L | 5.2380 | -- | -- | -- | 50 |
| ZINC | µg/L | 15.1660 | -- | 5000 | -- | -- |
| CHROMIUM (VI) | mg/L | 0.0005 | -- | -- | -- | -- |
| BROMIDE | mg/L | 0.6699 | -- | -- | -- | -- |
| CHLORATE | mg/L | 0.2252 | -- | -- | -- | -- |
| CHLORIDE | mg/L | 43.0 | -- | 500 | -- | -- |
| FLUORIDE | mg/L | 1.4260 | 2 | -- | 1 | -- |
| NITRATE - NO ₃ | mg/L | 4.1610 | 45 | -- | 45 | -- |
| SULFATE (SO ₄ --) | mg/L | 59.3 | -- | 500 | -- | -- |
| ALKALINITY | mg/L | 188 | -- | -- | -- | -- |
| BIOLOGIC OXYGEN DEMAND | mg O ₂ /L | 1.5178 | -- | -- | -- | -- |
| TOTAL ORGANIC CARBON | mg/L | 2.3783 | -- | -- | -- | -- |
| FOAMING AGENTS (MBAS) | mg/L | 0.0282 | -- | 0.5 | -- | -- |
| PROPACHLOR | µg/L | 0.0653 | -- | -- | -- | -- |
| 1,1,2-TRICHLOROTRIFLUOROETHANE | µg/L | 0.3733 | 1200 | -- | -- | -- |
| 1,1-DICHLOROETHANE | µg/L | 0.2250 | 5 | -- | 3 | -- |
| 1,1-DICHLOROETHENE | µg/L | 0.2531 | 6 | -- | 10 | -- |
| BROMOCHLOROMETHANE | µg/L | 1.5940 | -- | -- | -- | -- |
| CHLOROFORM | µg/L | 0.9755 | 100 | -- | -- | -- |
| ETHYLBENZENE | µg/L | 0.3067 | 300 | -- | 300 | -- |
| STYRENE | µg/L | 0.2667 | 100 | -- | -- | -- |
| TETRACHLOROETHENE (PCE) | µg/L | 0.7594 | 5 | -- | 0.06 | -- |
| TRICHLOROETHENE (TCE) | µg/L | 2.1500 | 5 | -- | 0.8 | -- |
| TRICHLOROFLUOROMETHANE | µg/L | 0.2600 | 150 | -- | 700 | -- |
| CHLOROFORM | µg/L | 1.6700 | 100 | -- | -- | -- |
| TOTAL TRIHALOMETHANES | µg/L | 1.6900 | 100 | -- | -- | -- |
| TPH-DIESEL | µg/L | 0.3650 | -- | -- | -- | -- |
| TPH-GASOLINE | µg/L | 0.0447 | -- | -- | -- | -- |
| TPH-MOTOR OILS | µg/L | 0.3288 | -- | -- | -- | -- |
| 1,4-DIOXANE | µg/L | 0.8588 | -- | -- | -- | 3 |
| 2,4,6-TRINITROTOLUENE (TNT) | µg/L | 2.6730 | -- | -- | -- | -- |
| HMX | µg/L | 0.7467 | -- | -- | -- | -- |
| RDX | µg/L | 2.8680 | -- | -- | -- | -- |
| PH | UNIT | 7.6440 | -- | -- | -- | -- |
| MERCURY | µg/L | 0.0850 | 2 | -- | 1.2 | -- |
| ALPHA, GROSS | pCi/L | 4.4434 | 15 | -- | -- | -- |
| BETA, GROSS | pCi/L | 4.3135 | 50 | -- | -- | -- |
| N-NITRODI-N-PROPYLAMINE | µg/L | 0.0107 | -- | -- | -- | -- |
| N-NITROSODIMETHYLAMINE (NDMA) | µg/L | 0.0013 | -- | -- | -- | 0.01 |
| N-NITROSODIPHENYLAMINE | µg/L | 0.0036 | -- | -- | -- | -- |
| Analytes that have not been Detected, but Detection Limits Were Above MCL/ALs | | | | | | |
| ALDRIN | µg/L | 0.0250 | -- | -- | -- | 0.002 |
| ALPHA-BHC | µg/L | 0.0250 | -- | -- | -- | 0.015 |
| DIELDRIN | µg/L | 0.0100 | -- | -- | -- | 0.002 |
| 1,2-DIBROMOETHANE (ETHYLENE DIBROMIDE, EDB) | µg/L | 0.2500 | 0.05 | -- | -- | -- |
| N-NITROSODIMETHYLAMINE (NDMA) ⁽¹⁾ | µg/L | 0.5000 | -- | -- | -- | 0.01 |

Notes:

1/2 of the detection limit was used for nondetected values when calculating the arithmetic mean

Table 3-14
Chemical Concentrations Estimated to be Present in the Influent to the Water Treatment Plant for the Ventura and Windsor Production Wells

| Analyte | Units | Estimated Influent Concentration ⁽¹⁾ | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level |
|--|-------|---|----------------|------------------|--------|------------------|
| Analytes Detected that Exceed MCLs or ALs | | | | | | |
| -- | -- | -- | -- | -- | -- | -- |
| Analytes Detected that do not Exceed MCLs or ALs, or do not have MCLs or ALs | | | | | | |
| ALKALINITY (TOTAL) AS CACO ₃ | MG/L | 188 | -- | -- | -- | -- |
| ALUMINUM | UG/L | 48 | 1000 | 200 | 600 | -- |
| ARSENIC (2) | UG/L | 0.85 | 50 | -- | 0.004 | -- |
| ATRAZINE | UG/L | 0.50 | 1.0 | -- | 0.15 | -- |
| BARIUM | UG/L | 109 | 1000 | -- | 2000 | -- |
| BENZENE | UG/L | 0.25 | 1.0 | -- | 0.15 | -- |
| BERYLLIUM (2) | UG/L | 0.50 | 4 | -- | 1 | -- |
| BICARBONATE ALKALINITY | MG/L | 211.50 | -- | -- | -- | -- |
| BORON | UG/L | 81.00 | -- | -- | -- | 1000 |
| BROMODICHLORMETHANE (THM) | UG/L | 0.42 | 100 | -- | -- | -- |
| BROMOFORM (THM) | UG/L | 0.56 | -- | -- | -- | -- |
| CALCIUM | MG/L | 92.60 | -- | -- | -- | -- |
| CARBON TETRACHLORIDE | UG/L | 0.26 | 0.50 | -- | 0.1 | -- |
| CHLORATE (2) | MG/L | 0.50 | -- | -- | -- | 0.8 |
| CHLORIDE | MG/L | 51.20 | -- | 500 | -- | -- |
| CHLOROFORM (THM) | UG/L | 0.41 | 100 | -- | -- | -- |
| CHLOROMETHANE | UG/L | 0.25 | -- | -- | -- | -- |
| CHROMIUM (TOTAL CR-CRVI SCREEN) | UG/L | 1.29 | 50 | -- | -- | -- |
| CHROMIUM (TOTAL) | UG/L | 2.77 | 50 | -- | -- | -- |
| CHROMIUM, HEXAVALENT | UG/L | 5.20 | 50 | -- | -- | -- |
| CIS-1,2-DICHLOROETHYLENE | UG/L | 0.23 | 6.0 | -- | 100 | -- |
| COBALT (2) | UG/L | 0.15 | -- | -- | -- | -- |
| COLOR | COLOR | 1.07 | -- | 15 | -- | -- |
| COMBINED RA 226 + RA 228 | pCi/L | 1.18 | 5 | -- | -- | -- |
| COPPER | UG/L | 18.17 | -- | 1000 | 170 | 1300 |
| DIBROMOCHLOROMETHANE (THM) | UG/L | 0.54 | 100 | -- | -- | -- |
| DICHLOROMETHANE | UG/L | 0.26 | 5.0 | -- | 4 | -- |
| FLUORIDE (TEMPERATURE DEPENDENT) | MG/L | 0.49 | 2 | -- | 1 | -- |
| GROSS ALPHA | pCi/L | 4.58 | 15 | -- | -- | -- |
| GROSS BETA | pCi/L | 4.41 | 50 | -- | -- | -- |
| HARDNESS (TOTAL) AS CACO ₃ | MG/L | 277.00 | -- | -- | -- | -- |
| IRON | UG/L | 412.50 | -- | 300 | -- | -- |
| LEAD (2) | UG/L | 0.30 | -- | -- | 2 | 15 |
| MAGNESIUM | MG/L | 34.50 | -- | -- | -- | -- |
| MANGANESE (2) | UG/L | 4.25 | -- | 50 | -- | 500 |
| MERCURY (2) | UG/L | 0.06 | 2 | -- | 1.2 | -- |
| NICKEL | UG/L | 7.50 | 100 | -- | 12 | -- |
| NITRATE (AS NO ₃) | MG/L | 32.85 | 45 | -- | 45 | -- |
| N-NITROSODIPHENYLAMINE (2) | UG/L | 0.0029 | -- | -- | -- | -- |
| O-XYLENE | UG/L | 0.25 | 1,750 | -- | 1800 | -- |
| PERCHLORATE | UG/L | 3.64 | -- | -- | 6 | 6.0 |
| PH | NA | 7.34 | -- | -- | -- | -- |
| POTASSIUM | MG/L | 2.38 | -- | -- | -- | -- |
| RADIUM 226 | pCi/L | 0.05 | -- | -- | 0.069 | -- |
| RADIUM 228 | pCi/L | 0.64 | -- | -- | 0.019 | -- |
| SELENIUM (2) | UG/L | 1.40 | 50 | -- | -- | -- |
| SIMAZINE | UG/L | 0.50 | 4.0 | -- | 4 | -- |
| SODIUM | MG/L | 29.30 | -- | -- | -- | -- |
| SULFATE | MG/L | 65.00 | -- | 500 | -- | -- |
| TETRACHLOROETHYLENE | UG/L | 0.63 | 5.0 | -- | 0.06 | -- |
| THALLIUM (2) | UG/L | 0.12 | 2 | -- | 0.1 | -- |
| TOTAL DISSOLVED SOLIDS | MG/L | 391.50 | -- | 1000 | -- | -- |
| TOTAL TRIHALOMETHANES | UG/L | 1.24 | -- | -- | -- | -- |
| TRICHLOROETHYLENE | UG/L | 0.76 | 5.0 | -- | 0.8 | -- |
| TRICHLOROFLUOROMETHANE | UG/L | 0.25 | 150 | -- | 700 | -- |
| TURBIDITY | NTU | 0.40 | -- | 5 | -- | -- |
| URANIUM (pCi/L) | pCi/L | 4.65 | 20 | -- | 0.43 | -- |
| VANADIUM | UG/L | 7.20 | -- | -- | -- | 50 |
| XYLENES (TOTAL) | UG/L | 0.25 | 1,750 | -- | 1800 | -- |
| ZINC | UG/L | 22.15 | -- | 5000 | -- | -- |
| Analytes that have not been Detected, but Detection Limits Were Above MCL/ALs | | | | | | |
| ALDRIN | UG/L | 0.05 | -- | -- | -- | 0.002 |
| BETA-BHC | UG/L | 0.05 | -- | -- | -- | 0.025 |
| DELTA-BHC | UG/L | 0.05 | -- | -- | -- | 0.025 |
| DIELDRIN | UG/L | 0.05 | -- | -- | -- | 0.002 |
| BENZO(A)PYRENE | UG/L | 1.00 | 0.2 | -- | 0.004 | -- |
| NDMA | UG/L | 1.00 | -- | -- | -- | 0.01 |

(1) Influent concentration was estimated by summing estimated influent concentrations for the Windsor and Ventura wells and dividing by two (assuming the average flow rates for the Windsor and Ventura wells were the same at 98 acre ft/month).

(2) These chemicals were not detected in the production wells, but were detected in groundwater collected from JPL's MW-19-3 and MW-21-3 during the Comprehensive Groundwater Monitoring Event in December 2002/January 2003. Average concentrations for these constituents were assumed to be equal to the average of MW-19-3 and MW-21-3 and used as substitutes for these constituents in Ventura and Windsor wells.

CA = California

MCL = maximum contaminant level

DHS = Department of Health Services

ug/L = micrograms per liter

NTU = Nephelometric Turbidity Units

pCi/L = picocuries per liter

mg/L = milligrams per liter

1/2 of the detection limit was used for nondetected values when

Table 3-15
Chemical Concentrations Estimated to be Present in the Influent to Water Treatment Plant for LAWC #3 and LAWC #5

| Analyte | Units | Estimated Influent Concentration ⁽¹⁾ | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level |
|---|-------|---|----------------|------------------|--------|------------------|
| Analytics Detected that Exceed MCLs or ALs | | | | | | |
| CARBON TETRACHLORIDE | UG/L | 0.53 | 0.50 | -- | 0.1 | -- |
| PERCHLORATE | UG/L | 10.52 | -- | -- | 6 | 6.0 |
| TRICHLOROETHYLENE | UG/L | 13.19 | 5.0 | -- | 0.8 | -- |
| Analytics Detected that do not Exceed MCLs or ALs, or do not have MCLs or ALs | | | | | | |
| 1,1,1-TRICHLOROETHANE | UG/L | 0.30 | 200 | -- | 1000 | -- |
| ALKALINITY (TOTAL) AS CACO ₃ | MG/L | 162.18 | -- | -- | -- | -- |
| ALUMINUM | UG/L | 56.81 | 1000 | 200 | 600.0 | -- |
| ARSENIC (2) | UG/L | 2.45 | 50 | -- | 0.004 | -- |
| ATRAZINE | UG/L | 0.53 | 1.0 | -- | 0.15 | -- |
| BARIUM (2) | UG/L | 40.90 | 1000 | -- | 2000 | -- |
| BERYLLIUM (2) | UG/L | 1.35 | 4 | -- | 1 | -- |
| BICARBONATE ALKALINITY | MG/L | 198.43 | -- | -- | -- | -- |
| BORON (2) | UG/L | 50.00 | -- | -- | -- | 1000 |
| BROMODICHLORMETHANE (THM) | UG/L | 0.33 | 100 | -- | -- | -- |
| CALCIUM | MG/L | 49.47 | -- | -- | -- | -- |
| CHLORIDE | MG/L | 13.00 | -- | 500 | -- | -- |
| CHLOROFORM (THM) | UG/L | 2.83 | 100 | -- | -- | -- |
| CHROMIUM (2) | UG/L | 2.20 | 50 | -- | -- | -- |
| CHROMIUM, HEXAVALENT | UG/L | 1.59 | -- | -- | -- | -- |
| COBALT(3) | UG/L | 0.06 | -- | -- | -- | -- |
| COLOR | UNITS | 1.50 | -- | 15 | -- | -- |
| COPPER (2) | UG/L | 0.80 | -- | 1000 | 170 | 1300 |
| DIBROMOCHLOROMETHANE (THM) | UG/L | 0.26 | 100 | -- | -- | -- |
| FLUORIDE (TEMPERATURE DEPENDENT) | MG/L | 0.69 | 2 | -- | 1 | -- |
| GROSS ALPHA | pCi/L | 4.12 | 15 | -- | -- | -- |
| HARDNESS (TOTAL) AS CACO ₃ | MG/L | 188.62 | -- | -- | -- | -- |
| IRON | UG/L | 118.10 | -- | 300 | -- | -- |
| LEAD (2) | UG/L | 0.10 | -- | -- | 2 | 15 |
| MAGNESIUM | MG/L | 15.54 | -- | -- | -- | -- |
| MANGANESE (2) | UG/L | 7.02 | -- | 50 | -- | 500 |
| MERCURY (2) | UG/L | 0.08 | 2 | -- | 1.2 | -- |
| NICKEL (2) | UG/L | 0.60 | 100 | -- | 12 | -- |
| NITRATE (AS NO ₃) | MG/L | 11.08 | 45 | -- | 45 | -- |
| NITRATE + NITRITE (AS N) | UG/L | 2198.57 | 10000 | -- | 10000 | -- |
| N-NITROSODIPHENYLAMINE (2) | UG/L | 1.31 | -- | -- | -- | -- |
| PH | NA | 7.44 | -- | -- | -- | -- |
| POTASSIUM | MG/L | 1.75 | -- | -- | -- | -- |
| SIMAZINE | UG/L | 0.50 | 4.0 | -- | -- | -- |
| SODIUM | MG/L | 18.13 | -- | -- | -- | -- |
| SULFATE | MG/L | 32.74 | -- | 500 | -- | -- |
| TETRACHLOROETHYLENE | UG/L | 0.75 | 5.0 | -- | 0.06 | -- |
| TOTAL DISSOLVED SOLIDS | MG/L | 235.67 | -- | 1000 | -- | -- |
| TOTAL TRIHALOMETHANES | UG/L | 3.11 | -- | -- | -- | -- |
| TURBIDITY | NTU | 0.27 | -- | 5 | -- | -- |
| URANIUM | pCi/L | 5.44 | 20 | -- | 0.43 | -- |
| VANADIUM | UG/L | 7.12 | -- | -- | -- | 50 |
| ZINC (2) | UG/L | 14.50 | -- | 5000 | -- | -- |
| Analytics that have not been Detected, but Detection Limits Were Above MCL/ALs | | | | | | |
| ALDRIN | UG/L | 0.01 | -- | -- | -- | 0.002 |
| BENZO(A)PYRENE | UG/L | 5.00 | 0.2 | -- | 0.004 | -- |
| BETA-BHC | UG/L | 0.03 | -- | -- | -- | 0.025 |
| DELTA-BHC | UG/L | 0.03 | -- | -- | -- | 0.025 |
| DIEDRIN | UG/L | 0.03 | -- | -- | -- | 0.002 |
| NDMA | UG/L | 2.50 | -- | -- | -- | 0.01 |

(1) Influent concentration was estimated by multiplying the average concentration by the average flow rate for each well, summing these products together and dividing by the total flow rate (i.e., sum of flow rate for LAWC #3 and LAWC #5). Average flow rate for LAWC #3 is 40 acre ft/month and average flow rate for LAWC #5 is 44 acre ft/month.

(2) These chemicals were not detected in the production wells, but were detected in groundwater collected from JPL's MW-17-3 and MW-17-4 during the Comprehensive Groundwater Monitoring Event in December 2002/January 2003. Average concentrations for these constituents were assumed to be equal to the average of MW-17-3 and MW-17-4 and used as substitutes for these constituents in LAWC #3 and LAWC #5. Although carbon tetrachloride, PCE, and TCE also were detected in MW-17-3 and MW-17-4, these constituents were already present in the production wells and therefore average concentrations were based on production well data.

(3) Cobalt was not analyzed for in the LAWC wells; therefore, the average cobalt concentration based on MW-17-3 and MW-17-4 was used to determine the influent concentration. This average concentration was assumed to be representative for both wells, multiplied by the respective average flow rate, summed, then divided by the total flow rate.

CA = California

MCL = maximum contaminant level

DHS = Department of Health Services

µg/L = micrograms per liter

NTU = Nephelometric Turbidity Units

pCi/L = picocuries per liter

mg/L = milligrams per liter

1/2 of the detection limit was used for nondetected values when

Table 3-16
Chemical Concentrations Estimated to be Present in the Influent to Water Treatment Plant for Rubio Cañon Wells #4 & #7

| Analyte | Units | Estimated Influent Concentration ⁽¹⁾ | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level |
|--|-------|---|----------------|------------------|--------|------------------|
| Analytes Detected that Exceed MCLs or ALs | | | | | | |
| -- | -- | -- | -- | -- | -- | -- |
| Analytes Detected that do not Exceed MCLs or ALs, or do not have MCLs or ALs | | | | | | |
| AGGRESSIVE INDEX (CORROSIVITY) | NA | 12.06 | -- | Non-Corrosive | -- | -- |
| ALKALINITY (TOTAL) AS CACO ₃ | MG/L | 192.88 | -- | -- | -- | -- |
| ALUMINUM | UG/L | 35.09 | 1,000 | 200 | 600 | -- |
| ARSENIC | UG/L | 1.13 | 50 | -- | 0.004 | -- |
| ATRAZINE | UG/L | 0.50 | 1.0 | -- | -- | -- |
| BARIUM | UG/L | 47.53 | 1,000 | -- | 2000 | -- |
| BICARBONATE ALKALINITY | MG/L | 234.51 | -- | -- | -- | -- |
| BORON | UG/L | 110.00 | -- | -- | -- | 1,000 |
| CADMIUM | UG/L | 1.00 | 5 | -- | 0.07 | -- |
| CALCIUM | MG/L | 55.61 | -- | -- | -- | -- |
| CARBONATE ALKALINITY | MG/L | 0.57 | -- | -- | -- | -- |
| CHLORIDE | MG/L | 24.01 | -- | 500 | -- | -- |
| CHLOROFORM (THM) | UG/L | 0.74 | 100 | -- | -- | -- |
| CHROMIUM (TOTAL) | UG/L | 9.80 | 50 | -- | -- | -- |
| CHROMIUM, HEXAVALENT | UG/L | 1.37 | -- | -- | -- | -- |
| COLOR | UNITS | 1.54 | -- | 15 | -- | -- |
| COMBINE RA 226 + RA 228 | PCI/L | 0.58 | 5 | -- | -- | -- |
| COPPER | UG/L | 21.73 | -- | 1,000 | 170 | 1,300 |
| DIBROMOCHLOROMETHANE (THM) | UG/L | 0.28 | 100 | -- | -- | -- |
| FLUORIDE (TEMPERATURE DEPENDENT) | MG/L | 0.91 | 2 | -- | 1 | -- |
| GROSS ALPHA | PCI/L | 8.15 | 15 | -- | -- | -- |
| HARDNESS (TOTAL) AS CACO ₃ | MG/L | 214.36 | -- | -- | -- | -- |
| IRON | UG/L | 46.40 | -- | 300 | -- | -- |
| LEAD | UG/L | 2.64 | -- | -- | 2 | 15 |
| MAGNESIUM | MG/L | 18.03 | -- | -- | -- | -- |
| MANGANESE | UG/L | 10.40 | -- | 50 | -- | 500 |
| MERCURY | UG/L | 0.45 | 2 | -- | 1.2 | -- |
| NITRATE (AS NO ₃) | MG/L | 23.72 | 45 | -- | 45 | -- |
| NITRATE + NITRITE (AS N) | UG/L | 3,728 | 10,000 | -- | 10000 | -- |
| NITRATE + NITRITE (NO ₃ -N) | UG/L | 3,057 | -- | -- | -- | -- |
| PERCHLORATE | UG/L | 2.67 | -- | -- | 6 | 6 |
| PH, LABORATORY | NA | 7.68 | -- | -- | -- | -- |
| POTASSIUM | MG/L | 1.93 | -- | -- | -- | -- |
| RADIUM 226 | PCI/L | 0.40 | -- | -- | 0.069 | -- |
| SELENIUM | UG/L | 2.33 | 50 | -- | -- | -- |
| SILVER | UG/L | 5.00 | -- | 100 | -- | -- |
| SIMAZINE | UG/L | 0.50 | 4 | -- | -- | -- |
| SODIUM | MG/L | 31.07 | -- | -- | -- | -- |
| SULFATE | MG/L | 37.33 | -- | 500 | -- | -- |
| TOTAL DISSOLVED SOLIDS | MG/L | 307.65 | -- | 1000 | -- | -- |
| TOTAL TRIHALOMETHANES | UG/L | 0.79 | -- | -- | -- | -- |
| TRICHLOROETHYLENE | UG/L | 0.35 | 5 | -- | 0.8 | -- |
| TURBIDITY | NTU | 0.27 | -- | 5 | -- | -- |
| URANIUM (PCI/L) | PCI/L | 9.13 | 20 | -- | 0.43 | -- |
| VANADIUM | UG/L | 4.10 | -- | -- | -- | 50 |
| ZINC | UG/L | 21.40 | -- | 5,000 | -- | -- |
| ODOR THRESHOLD @ 60 C | | 1.00 | -- | 3 | -- | -- |
| SPECIFIC CONDUCTANCE | US | 550.53 | -- | 1600 | -- | -- |
| Analytes that have not been Detected, but Detection Limits Were Above MCL/ALs | | | | | | |
| N-NITROSODIMETHYLAMINE (NDMA) | UG/L | 5 | -- | -- | -- | 0.01 |
| 1,2,3-TRICHLOROPROPANE | UG/L | 0.01 | -- | -- | -- | 0.005 |
| ALDRIN | UG/L | 0.08 | -- | -- | -- | 0.002 |
| DIELDRIN | UG/L | 0.02 | -- | -- | -- | 0.002 |

1) Influent concentration was estimated by multiplying the average concentration by the average flow rate for each well, summing these products together and dividing by the total flow rate (i.e., sum of flow rate for Rubio #4 and Rubio #7). Average flow rate for Rubio #4 is 39 acre ft/month and average flow rate for Rubio #7 is 78 acre ft/month.

CA = California

MCL = maximum contaminant level

PHG = Public Health Goal

DHS = Department of Health Services

Table 3-17
Chemical Concentrations Estimated to be Present in the Influent to Water Treatment Plant for Las Flores Well 2

| Analyte | Units | Arithmetic Mean | CA Primary MCL | CA Secondary MCL | CA PHG | DHS Action Level |
|--|-------|-----------------|----------------|------------------|--------|------------------|
| Analytes Detected that Exceed MCLs or ALs | | | | | | |
| NITRATE (AS NO3) | MG/L | 45.95 | 45 | -- | 45 | -- |
| NITRATE + NITRITE (AS N) | UG/L | 10049 | 10000 | -- | 10000 | -- |
| PERCHLORATE | UG/L | 6.11 | -- | -- | 6 | 6 |
| TETRACHLOROETHYLENE | UG/L | 10.36 | 5 | -- | 0.06 | -- |
| Analytes Detected that do not Exceed MCLs or ALs, or do not have MCLs or ALs | | | | | | |
| AGGRESSIVE INDEX (CORROSION) | NA | 11.89 | -- | Non-Corrosive | -- | -- |
| ALKALINITY (TOTAL) AS CACO3 | MG/L | 187.2 | -- | -- | -- | -- |
| ALUMINUM | UG/L | 42.25 | 1000 | 200 | 600 | -- |
| ARSENIC | UG/L | 1.5 | 50 | -- | 0.004 | -- |
| BICARBONATE ALKALINITY | MG/L | 227.8 | -- | -- | -- | -- |
| BROMODICHLORMETHANE (THM) | UG/L | 0.32 | -- | -- | -- | -- |
| BROMOFORM (THM) | UG/L | 0.87 | -- | -- | -- | -- |
| CALCIUM | MG/L | 81.67 | -- | -- | -- | -- |
| CARBONATE ALKALINITY | MG/L | 0.49 | -- | -- | -- | -- |
| CHLORIDE | MG/L | 39.05 | -- | 500 | -- | -- |
| CHLOROFORM (THM) | UG/L | 1.52 | 100 | -- | -- | -- |
| CHROMIUM, HEXAVALENT | UG/L | 3.63 | -- | -- | -- | -- |
| COMBINE RA 226 + RA 228 | PCI/L | 0.42 | 5 | -- | -- | -- |
| DIBROMOCHLOROMETHANE (THM) | UG/L | 0.60 | 100 | -- | -- | -- |
| DIBROMOCHLOROPROPANE (DBCP) | UG/L | 0.006 | 0.2 | -- | -- | -- |
| ETHYLBENZENE | UG/L | 0.28 | 300 | -- | 300 | -- |
| FLUORIDE (TEMPERATURE DEPENDENT) | MG/L | 0.59 | 2 | -- | 1 | -- |
| GROSS ALPHA | PCI/L | 10.93 | 15 | -- | -- | -- |
| GROSS BETA | PCI/L | 4.90 | 50 | -- | -- | -- |
| HARDNESS (TOTAL) AS CACO3 | MG/L | 291.7 | -- | -- | -- | -- |
| M,P-XYLENE | UG/L | 0.47 | 1750 | -- | 1800 | -- |
| MAGNESIUM | MG/L | 22.6 | -- | -- | -- | -- |
| O-XYLENE | UG/L | 0.30 | 1750 | -- | 1800 | -- |
| PH, LABORATORY | NA | 7.33 | -- | -- | -- | -- |
| POTASSIUM | MG/L | 2.28 | -- | -- | -- | -- |
| RADIUM 226 | PCI/L | 0.17 | -- | -- | 0.069 | -- |
| SODIUM | MG/L | 24.35 | -- | -- | -- | -- |
| SULFATE | MG/L | 64.93 | -- | 500 | -- | -- |
| TOTAL DISSOLVED SOLIDS | MG/L | 390.17 | -- | 1000 | -- | -- |
| TOTAL TRIHALOMETHANES | UG/L | 1.41 | -- | -- | -- | -- |
| TURBIDITY | NTU | 0.1 | -- | 5 | -- | -- |
| URANIUM (PCI/L) | PCI/L | 13.28 | 20 | -- | 0.43 | -- |
| VANADIUM | UG/L | 4.90 | -- | -- | -- | 50 |
| XYLENES (TOTAL) | UG/L | 0.50 | 1750 | -- | 1800 | -- |
| ODOR THRESHOLD @ 60 C | | 1 | -- | 3 | -- | -- |
| SPECIFIC CONDUCTANCE | US | 648.8 | -- | 1600 | -- | -- |
| Analytes that have not been Detected, but Detection Limits Were Above MCL/ALs | | | | | | |
| ALDRIN | UG/L | 0.075 | -- | -- | -- | 0.002 |
| DIELDRIN | UG/L | 0.02 | -- | -- | -- | 0.002 |
| DIMETHOATE | UG/L | 10 | -- | -- | -- | 1.0 |

CA = California

MCL = maximum contaminant level

PHG = Public Health Goal

DHS = Department of Health Services

Table 3-18. Results of Modeling Simulations

| Chemical | Target Level (µg/L) | Maximum Concentration Required to Meet Action Level (µg/L) | | | | | | | | | | | | | | |
|---------------------------|---------------------|--|----------|----------|----------|---------|---------------------|---------|----------|---------|----------|---------------------|---------|----------|----------|----------|
| | | Distance = 500 ft | | | | | Distance = 1,000 ft | | | | | Distance = 1,500 ft | | | | |
| | | Sorption (mL/g) | | | | | Sorption (mL/g) | | | | | Sorption (mL/g) | | | | |
| Perchlorate | 6 | 66.312 | 66.312 | 69.48 | 102.12 | 429 | 130.26 | 130.8 | 137.1 | 201.6 | 846.84 | 193.92 | 195 | 204.72 | 42485.96 | 1264.98 |
| CCl4 | 0.5 | 5.526 | 5.526 | 5.79 | 8.51 | 35.75 | 10.855 | 10.9 | 11.425 | 16.8 | 70.57 | 16.16 | 16.25 | 17.06 | 3540.497 | 105.415 |
| TCE/PCE | 5 | 55.26 | 55.26 | 57.9 | 85.1 | 357.5 | 108.55 | 109 | 114.25 | 168 | 705.7 | 161.6 | 162.5 | 170.6 | 35404.97 | 1054.15 |
| 2,4,6-TNT | 2.2 | 24.3144 | 24.3144 | 25.476 | 37.444 | 157.3 | 47.762 | 47.96 | 50.27 | 73.92 | 310.508 | 71.104 | 71.5 | 75.064 | 15578.19 | 463.826 |
| HMX | 1800 | 19893.6 | 19893.6 | 20844 | 30636 | 128700 | 39078 | 39240 | 41130 | 60480 | 254052 | 58176 | 58500 | 61416 | 12745789 | 379494 |
| RDX | 0.61 | 6.74172 | 6.74172 | 7.0638 | 10.3822 | 43.615 | 13.2431 | 13.298 | 13.9385 | 20.496 | 86.0954 | 19.7152 | 19.825 | 20.8132 | 4319.406 | 128.6063 |
| NDMA | 0.0013 | 0.0143676 | 0.014368 | 0.015054 | 0.022126 | 0.09295 | 0.028223 | 0.02834 | 0.029705 | 0.04368 | 0.183482 | 0.042016 | 0.04225 | 0.044356 | 9.205292 | 0.274079 |
| n-Nitrosodi-n-propylamine | 0.0096 | 0.1060992 | 0.106099 | 0.111168 | 0.163392 | 0.6864 | 0.208416 | 0.20928 | 0.21936 | 0.32256 | 1.354944 | 0.310272 | 0.312 | 0.327552 | 67.97754 | 2.023968 |
| n-Nitrosodiphenylamine | 14 | 154.728 | 154.728 | 162.12 | 238.28 | 1001 | 303.94 | 305.2 | 319.9 | 470.4 | 1975.96 | 452.48 | 455 | 477.68 | 99133.91 | 2951.62 |
| Chlorate | 800 | 8841.6 | 8841.6 | 9264 | 13616 | 57200 | 17368 | 17440 | 18280 | 26880 | 112912 | 25856 | 26000 | 27296 | 5664795 | 168664 |
| Propachlor | 470 | 5194.44 | 5194.44 | 5442.6 | 7999.4 | 33605 | 10203.7 | 10246 | 10739.5 | 15792 | 66335.8 | 15190.4 | 15275 | 16036.4 | 3328067 | 99090.1 |
| TCP | 0.005 | 0.05526 | 0.05526 | 0.0579 | 0.0851 | 0.3575 | 0.10855 | 0.109 | 0.11425 | 0.168 | 0.7057 | 0.1616 | 0.1625 | 0.1706 | 35.40497 | 1.05415 |
| 1,4-Dioxane | 3 | 33.156 | 33.156 | 34.74 | 51.06 | 214.5 | 65.13 | 65.4 | 68.55 | 100.8 | 423.42 | 96.96 | 97.5 | 102.36 | 21242.98 | 632.49 |
| Time (yr) | | 2.4 | 2.5 | 2.5 | 3.8 | 15.5 | 4.7 | 4.8 | 5.0 | 7.3 | 30.3 | 7.1 | 7.1 | 7.4 | 10.8 | 45.0 |

| Chemical | Target Level (µg/L) | Maximum Concentration Required to Meet Action Level (µg/L) | | | | | | | | | | | | | | |
|---------------------------|---------------------|--|----------|----------|----------|---------|---------------------|----------|----------|---------|---------|---------------------|----------|---------|---------|---------|
| | | Distance = 2,000 ft | | | | | Distance = 2,500 ft | | | | | Distance = 3,000 ft | | | | |
| | | Sorption (mL/g) | | | | | Sorption (mL/g) | | | | | Sorption (mL/g) | | | | |
| Perchlorate | 6 | 256.08 | 257.64 | 270.54 | 397.92 | 1671 | 321.6 | 322.92 | 339.24 | 497.4 | 2088.6 | 389.4 | 391.56 | 411 | 603.6 | 2539.8 |
| CCl4 | 0.5 | 21.34 | 21.47 | 22.545 | 33.16 | 139.25 | 26.8 | 26.91 | 28.27 | 41.45 | 174.05 | 32.45 | 32.63 | 34.25 | 50.3 | 211.65 |
| TCE/PCE | 5 | 213.4 | 214.7 | 225.45 | 331.6 | 1392.5 | 268 | 269.1 | 282.7 | 414.5 | 1740.5 | 324.5 | 326.3 | 342.5 | 503 | 2116.5 |
| 2,4,6-TNT | 2.2 | 93.896 | 94.468 | 99.198 | 145.904 | 612.7 | 117.92 | 118.404 | 124.388 | 182.38 | 765.82 | 142.78 | 143.572 | 150.7 | 221.32 | 931.26 |
| HMX | 1800 | 76824 | 77292 | 81162 | 119376 | 501300 | 96480 | 96876 | 101772 | 149220 | 626580 | 116820 | 117468 | 123300 | 181080 | 761940 |
| RDX | 0.61 | 26.0348 | 26.1934 | 27.5049 | 40.4552 | 169.885 | 32.696 | 32.8302 | 34.4894 | 50.569 | 212.341 | 39.589 | 39.8086 | 41.785 | 61.366 | 258.213 |
| NDMA | 0.0013 | 0.055484 | 0.055822 | 0.058617 | 0.086216 | 0.36205 | 0.06968 | 0.069966 | 0.073502 | 0.10777 | 0.45253 | 0.08437 | 0.084838 | 0.08905 | 0.13078 | 0.55029 |
| n-Nitrosodi-n-propylamine | 0.0096 | 0.409728 | 0.412224 | 0.432864 | 0.636672 | 2.6736 | 0.51456 | 0.516672 | 0.542784 | 0.79584 | 3.34176 | 0.62304 | 0.626496 | 0.6576 | 0.96576 | 4.06368 |
| n-Nitrosodiphenylamine | 14 | 597.52 | 601.16 | 631.26 | 928.48 | 3899 | 750.4 | 753.48 | 791.56 | 1160.6 | 4873.4 | 908.6 | 913.64 | 959 | 1408.4 | 5926.2 |
| Chlorate | 800 | 34144 | 34352 | 36072 | 53056 | 222800 | 42880 | 43056 | 45232 | 66320 | 278480 | 51920 | 52208 | 54800 | 80480 | 338640 |
| Propachlor | 470 | 20059.6 | 20181.8 | 21192.3 | 31170.4 | 130895 | 25192 | 25295.4 | 26573.8 | 38963 | 163607 | 30503 | 30672.2 | 32195 | 47282 | 198951 |
| TCP | 0.005 | 0.2134 | 0.2147 | 0.22545 | 0.3316 | 1.3925 | 0.268 | 0.2691 | 0.2827 | 0.4145 | 1.7405 | 0.3245 | 0.3263 | 0.3425 | 0.503 | 2.1165 |
| 1,4-Dioxane | 3 | 128.04 | 128.82 | 135.27 | 198.96 | 835.5 | 160.8 | 161.46 | 169.62 | 248.7 | 1044.3 | 194.7 | 195.78 | 205.5 | 301.8 | 1269.9 |
| Time (yr) | | 9.2 | 9.2 | 9.7 | 14.1 | 58.8 | 11.4 | 11.5 | 12.1 | 17.8 | 74.1 | 13.7 | 13.9 | 14.5 | 21.3 | 88.6 |

Note: Target levels for the chemicals are as follows:

Perchlorate = DHS action level

Carbon tetrachloride (CCl4) = DHS MCL

TCE/PCE = DHS MCL

2,4,6-TNT = EPA Region 9 tapwater preliminary remediation goal

HMX = EPA Region 9 tapwater preliminary remediation goal

RDX = EPA Region 9 tapwater preliminary remediation goal

NDMA = EPA Region 9 tapwater preliminary remediation goal (DHS action level is 0.01 µg/L)

N-nitrosodi-n-propylamine = EPA Region 9 tapwater preliminary remediation goal

N-nitrosodiphenylamine = EPA Region 9 tapwater preliminary remediation goal

Chlorate = DHS action level

Propachlor = EPA Region 9 tapwater preliminary remediation goal

TCP = DHS action level

1,4-dioxane = DHS action level

Table 3-19. Comparison of Measured Concentrations in JPL Wells⁽¹⁾ Within Radii of Influence of Arroyo Well to Estimated Concentrations Determined from Groundwater Modeling

| Analyte | Unit | MW-3 (~800 ft) | MW-12 (~1,300 ft) | MW-11 (~1,500 ft) | MW-7 (~2,200) | MW-13 (~2,200) | Estimated Concentrations, no Sorption ⁽²⁾ | | | | | |
|---------------------------|------|-------------------|----------------------|----------------------|------------------|-------------------|--|----------|----------|----------|----------|----------|
| | | | | | | | 500 ft | 1,000 ft | 1,500 ft | 2,000 ft | 2,500 ft | 3,000 ft |
| PERCHLORATE | µg/L | <4 - 91 | 4 - 9.2 | <4 - 29 | 120 - 13300 | 57 - 590 | 66 | 130 | 194 | 256 | 322 | 389 |
| CARBON TETRACHLORIDE | µg/L | 0.2 - 230 | <0.2 - 35 | 0.5 - 11.7 | <0.2 - 310 | <0.5 - 70 | 5.5 | 11 | 16 | 21 | 27 | 33 |
| TCE | µg/L | 0.4 - 35 | 0.3 - 3 | 0.4 - 6.6 | <0.5 - 48 | <0.5 - 73 | 55 | 109 | 162 | 213 | 268 | 325 |
| PCE | µg/L | 0.3 - 1.7 | <0.5 - 1.2 | 0.3 - 7.7 | <0.5 - 33 | <0.5 - 1.5 | 55 | 109 | 162 | 213 | 268 | 325 |
| TNT | µg/L | <2 - 26 | <0.11 - 2.2 | <0.11 | <0.11 | NA | 24 | 48 | 71 | 94 | 118 | 143 |
| HMX | µg/L | <10 - 2.5 | <0.5 | <0.5 | <0.5 | NA | 19894 | 39078 | 58176 | 76824 | 96480 | 116820 |
| RDX | µg/L | <4 - 27 | 0.66 - 3 | <0.2 | <0.2 | NA | 7 | 13 | 20 | 26 | 33 | 40 |
| NDMA | µg/L | 0.00044 - 0.006 | <0.002 | 0.002 - 0.003 | 0.00366 | <5 | 0.01 | 0.03 | 0.04 | 0.06 | 0.07 | 0.08 |
| N-NITROSODI-N-PROPYLAMINE | µg/L | <5 - 0.125 | <0.005 | <0.005 - <5 | <0.005 | <5 | 0.11 | 0.21 | 0.31 | 0.41 | 0.52 | 0.62 |
| N-NITROSODIPHENYLAMINE | µg/L | <5 - 0.025 | <0.005 | 0.0018 - 0.0019 | 0.00174 | <5 | 155 | 304 | 452 | 598 | 750 | 909 |
| CHLORATE | mg/L | <0.1 | <0.1 | <0.1 - 0.073 | <0.1 | NA | 8842 | 17368 | 25856 | 34144 | 42880 | 51920 |
| PROPACHLOR | µg/L | <0.1 | <0.1 | <0.05 - 0.28 | <0.1 | NA | 5194 | 10204 | 15190 | 20060 | 25192 | 30503 |
| 1,2,3-TRICHLOROPROPANE | µg/L | <0.005 | 0.024 | <0.5 - 0.071 | <0.005 | <0.5 | 0.06 | 0.11 | 0.16 | 0.21 | 0.27 | 0.32 |
| 1,4-DIOXANE | µg/L | <1 - 0.6 | <1 - 1.7 | <0.96 - 1.9 | <3 - 5 | <3 | 33 | 65 | 97 | 128 | 161 | 195 |

Shading indicates that the maximum concentration detected in the JPL Well was greater than the concentration estimated to have to be present at a certain distance away from the Arroyo Well to exceed the target level.

NA - Analyte not analyzed for in this well.

(1) Based on JPL monitoring well data from 1996 through February 2003.

(2) Concentration taken from Table 3-18.

Table 3-20
Identification of COPCs and Potential Range of Concentrations

| COPC | Units | Historical Average Concentrations ⁽¹⁾ | Historical Maximum Concentrations ⁽²⁾ | Estimated Influent Concentration ⁽³⁾ | Applicable Regulatory Limit ⁽⁴⁾ |
|----------------------------------|-------|--|--|---|--|
| Arroyo and Well 52 | | | | | |
| 1,2,3-TRICHLOROPROPANE | UG/L | ND | ND | 0.014 | 0.005 |
| CARBON TETRACHLORIDE | UG/L | 4.7 | 15 | 2.86 | 0.5 |
| PERCHLORATE | UG/L | 96.2 | 160 | 20.3 | 6 |
| TRICHLOROETHENE | UG/L | 3.7 | 15 | 2.15 | 5 |
| TNT ⁵ | UG/L | NAF | NAF | 2.67 | N/A |
| RDX ⁵ | UG/L | NAF | NAF | 2.87 | N/A |
| Ventura and Windsor Wells | | | | | |
| PERCHLORATE | UG/L | 4 | 9.7 | 4.2 | 6 |
| LAWC Wells #3 and #5 | | | | | |
| CARBON TETRACHLORIDE | UG/L | 0.64 | 2.6 | 0.57 | 0.50 |
| PERCHLORATE | UG/L | 6.8 | 31 | 10.52 | 6 |
| TRICHLOROETHYLENE | UG/L | 19.63 | 57 | 10.70 | 5.0 |
| Las Flores | | | | | |
| PERCHLORATE | UG/L | 6.2 | 9 | 6.2 | 6 |
| NITRATE (AS NO ₃) | MG/L | 46 | 60.3 | 46 | 45 |
| TETRACHLOROETHYLENE | UG/L | 10.4 | 17 | 10.4 | 5 |

(1) Historical average concentrations based on historical production well monitoring data. Concentration shown is the higher of the average concentration determined for each production well.

(2) Historical maximum concentrations based on historical production well monitoring data. Concentration shown is the higher of the maximum concentrations determined for each production well.

(3) Influent estimate obtained from Tables 3-13 through 3-17.

(4) Applicable regulatory limit is the lowest of the primary MCL, secondary MCL, and AL.

(5) COPCs

ND - not detected

NA - not applicable

NAF - not analyzed for in historical samples

Table 5-1. PWP Sampling Location and Monitoring Schedule

| Analyte | Method | Ventura Well | Windsor Well | Arroyo Well | Well 52 | Air Stripper Effluent | Lead VGAC Effluent | Combined Air Discharge | IX Influent | Each IX Effluent | LGAC Influent | Each LGAC-Port 4 | Combined Effluent |
|---------------------------|-----------|--------------|--------------|-------------|---------|-----------------------|--------------------|------------------------|-------------|------------------|---------------|------------------|-------------------|
| VOCs ^(a) | EPA 524.2 | M | M | M | M | M | M | M | - | - | W | W | M |
| 1,2,3-Trichrolopropane | EPA 504.1 | M | M | M | M | M | M | M | - | - | W | W | M |
| Perchlorate | EPA 314.0 | M | M | M | M | M | M | M | W | W | - | - | M |
| Total Coliform | EPA 1604 | - | - | - | - | - | - | - | - | - | M | M | W |
| Heterotrophic Plate Count | SM 9215B | - | - | - | - | - | - | - | - | - | M | M | W |
| Nitrate | EPA 300.0 | M | M | M | M | M | M | M | M | M | - | - | M |

(a) VOCs include carbon tetrachloride, trichloroethene, tetrachloroethene, and 1,1-dichloroethene

M = Monthly

W = Weekly

Table 5-2. LAWC Sampling Location and Monitoring Schedule

| Analyte | Method | LAWC #3 | LAWC #5 | IX Influent | Lead IX Effluent | Lag IX Effluent | LGAC-4 th Port ² | LGAC-Effluent ³ | Combined Effluent |
|------------------------------|-----------|---------|---------|-------------|------------------|-----------------|--|----------------------------|-------------------|
| Trichloroethene (TCE) | EPA 524.2 | M | M | - | - | - | W | M | M |
| Tetrachloroethene (PCE) | EPA 524.2 | M | M | - | - | - | W | M | M |
| Carbon Tetrachloride (CTC) | EPA 524.2 | M | M | - | - | - | W | M | M |
| 1,2,3-Trichloropropane (TCP) | EPA 504.1 | M | M | - | - | - | - | - | - |
| Perchlorate | EPA 314.0 | M | M | W | W ¹ | W | - | - | M |
| Nitrate | EPA 300.0 | - | - | M | M | M | - | M | - |
| Total Coliform | EPA 1604 | M | M | - | - | - | - | M | W |
| Heterotrophic Plate Count | SM 9215B | - | - | - | - | - | - | M | W |

(1) Sample Lead bed effluent twice weekly after initial detection is confirmed.

(2) Samples will be collected from the 4th port of each LGAC vessel.

(3) Samples will be collected from the effluent of each LGAC vessel.

M = Monthly

W = Weekly

Table 5-3. Las Flores Water Company Sampling Location and Monitoring Schedule

| Analyte | Method | Mountain View Well 2 | GAC Sample Port at 50% | GAC Sample Port at 75% | GAC Effluent | Blending Facility |
|---------------------------|-----------|----------------------|------------------------|------------------------|--------------|-------------------|
| PCE | EPA 524.2 | W | W ^(a) | W ^(a) | W | W ^(b) |
| Perchlorate | EPA 314.0 | W | W ^(a) | W ^(a) | W | W |
| Nitrate | EPA 300.0 | W | - | - | W | W |
| Heterotrophic Plate Count | SM 9215B | M | - | - | M | - |
| VOCs | EPA 524.2 | A | - | - | - | - |

(a) PCE and perchlorate samples collected weekly from the GAC sample port at 50% until detected. Once PCE and perchlorate are detected at the 50% sample port, then samples will be collected weekly from the GAC sample port at 75%.

(b) PCE samples collected weekly from the Blending Facility only if the GAC is bypassed.

M = Monthly

W = Weekly

A = Annually

Table 5-4
Treatability Assessment for Water Treatment Plants

| Analytes Detected that Exceed MCLs or ALs | Units | Estimated Influent Concentration ⁽¹⁾ | CA Primary MCL | CA Secondary MCL | DHS Action Level | Treatability Assessment | Treatment Method |
|---|-------|---|----------------|------------------|------------------|-------------------------|------------------|
| PWP Treatment System | | | | | | | |
| PERCHLORATE | µg/L | 20.3 | -- | -- | 6 | Yes | Ion Exchange |
| 1,2,3-TRICHLOROPROPANE | µg/L | 0.01 | -- | -- | 0.005 | Yes | AS/LGAC |
| CARBON TETRACHLORIDE | µg/L | 2.86 | 0.5 | -- | -- | Yes | AS/LGAC |
| TRICHLOROETHYLENE | µg/L | 2.15 | 5.0 | -- | -- | Yes | AS/LGAC |
| 2,4,6-TRINITROTOLUENE | µg/L | 2.67 | -- | -- | -- | Yes | LGAC |
| RDX | µg/L | 2.87 | -- | -- | -- | Yes | LGAC |
| LAWC Treatment System | | | | | | | |
| PERCHLORATE | µg/L | 11.8 | -- | -- | 6 | Yes | Ion Exchange |
| CARBON TETRACHLORIDE | µg/L | 0.57 | 0.50 | -- | -- | Yes | LGAC |
| TRICHLOROETHYLENE | µg/L | 10.70 | 5.0 | -- | -- | Yes | LGAC |
| Las Flores Treatment System | | | | | | | |
| NITRATE (AS NO ₃) | MG/L | 45.95 | 45 | -- | -- | Yes | Blending |
| PERCHLORATE | UG/L | 6.24 | -- | -- | 6 | Yes | Blending |
| TETRACHLOROETHYLENE | UG/L | 10.36 | 5 | -- | -- | Yes | LGAC |

Notes:

CA = California

MCL = maximum contaminant level

DHS = Department of Health Services

µg/L = micrograms per liter

NTU = Nephelometric Turbidity Units

pCi/L = picocuries per liter

mg/L = milligrams per liter

(1) 1/2 the detection limit was used for nondetect values in calculating the average concentration for each well. Influent concentration was estimated by multiplying the average concentration by the average flow rate for each well, summing these products together and dividing by the total flow rate (i.e., sum of flow rate for Ventura and Windsor). Average flow rate for Ventura is 105 acre ft/month and average flow rate for Windsor is 88 acre ft/month.

TABLE 6-1

Estimates of Risk Based on Treatment System Failure at the Water Treatment Plant for the Arroyo Well and Well 52

| Analyte ⁽¹⁾ | MCL or AL (ug/L) | CA OEHHA PHG (ug/L) | CA OEHHA PHG Support Document (ug/L) | U.S. EPA Region 9 PRG (ug/L) | Applicable Standard (Cancer) (ug/L) | Applicable Standard (Non-cancer) (ug/L) | Estimated Influent Concentration ⁽¹⁾ (ug/L) | Exposure Duration (total number of days treatment system fails over 20 years) ⁽⁵⁾ | Incremental Cancer Risk ⁽⁶⁾ | Noncancer Hazard Quotient ⁽⁷⁾ |
|------------------------|------------------|---------------------|--------------------------------------|------------------------------|-------------------------------------|---|--|--|--|--|
| 1,2,3-TRICHLOROPROPANE | 0.005 | -- | -- | 0.0056 ca | 0.005 | NA | 0.01 | 56 | 4.4E-09 | NA |
| CARBON TETRACHLORIDE | 0.5 | 0.1 | 5 | 0.17 ca | 0.1 | 5 | 2.86 | 56 | 6.3E-08 | 0.6 |
| PERCHLORATE | 6 | 6 | -- | 3.6 ca 3.6 nc | NA | 6 | 20.30 | 56 | NA | 3.4 |
| 2,4,6-TNT | -- | -- | -- | 2.2 ca | 2.2 | NA | 2.67 | 56 | 2.7E-09 | NA |
| RDX | -- | -- | -- | 0.61 ca | 0.61 | NA | 2.87 | 56 | 1.0E-08 | NA |
| | | | | | | | | TOTAL | 8.0E-08 | 4.0 |

(1) Estimates of risk were determined for chemicals of potential concern that were identified in Section 3.5 and listed in Table 3-20.

(2) U.S. EPA Region 9 Preliminary Remediation Goals (PRGs) accessed at <http://www.epa.gov/region09/waste/sfund/prg/files/02table.pdf>; ca = carcinogen; nc = noncarcinogen.

(3) Applicable standards (cancer and noncancer) were based on the PHG, USEPA Region 9 PRG or the MCL/AL. PHGs were used as the standard if one was available. If no PHG existed, then the lower of the USEPA Region 9 PRG value and MCL/AL was used. The MCL/AL was used when no PHG or PRG existed. In some cases, the PHG was obtained from the documentation supporting the PHG available at <http://www.oehha.ca.gov/water/phg/allphgs.html>.

(4) Influent concentrations are the arithmetic means of the estimated water quality of the influent to the water treatment plant obtained from Section 3.0.

(5) Assumes complete system failure once every five years for 14-days over a 20-year period.

(6) Calculation of cancer risk: [(Concentration/Applicable or Relevant Standard for Cancer) x (Period of exposure in days)/(365 days x 70 years)]

(7) Calculation of hazard quotient: [(Concentration/Applicable or Relevant Standard for noncancer)]; Noncancer hazard quotient equal to or greater than 1 indicates potential for adverse health effect, depending on toxicity endpoint.

TABLE 6-2**Estimates of Risk Based on Treatment System Failure at the Water Treatment Plant for the Ventura and Windsor Wells**

| Analyte | Primary MCL or AL (ug/L) | CA OEHHA PHG (ug/L) | CA OEHHA PHG Support Document (ug/L) | U.S. EPA Region 9 PRG (ug/L) | Applicable Standard (Cancer) (ug/L) | Applicable Standard (Non-cancer) (ug/L) | Estimated Influent Concentration ⁽¹⁾ (ug/L) | Exposure Duration (total number of days treatment system fails over 20 years) | Incremental Cancer Risk | Noncancer Hazard Quotient |
|--------------|--------------------------|---------------------|--------------------------------------|------------------------------|-------------------------------------|---|--|---|-------------------------|---------------------------|
| PERCHLORATE | 6 | 6 | -- | 3.6 ca 3.6 nc | NA | 6 | 4.20 | 56 | NA | 0.7 |
| TOTAL | | | | | | | | 0.0E+00 | 7.0E-01 | |

(1) Estimates of risk were determined for chemicals of potential concern that were identified in Section 3.5 and listed on Table 3-20.

(2) U.S. EPA Region 9 Preliminary Remediation Goals (PRGs) accessed at <http://www.epa.gov/region09/waste/sfund/prg/files/02table.pdf>; ca = carcinogen; nc = noncarcinogen.

(3) Applicable standards (cancer and noncancer) were based on the PHG, USEPA Region 9 PRG or the MCL/AL. PHGs were used as the standard if one was available. If no PHG existed, then the lower of the USEPA Region 9 PRG value and MCL/AL was used. The MCL/AL was used when no PHG or PRG existed. In some cases, the PHG was obtained from the documentation supporting the PHG available at <http://www.oehha.ca.gov/water/phg/allphgs.html>.

(4) Influent concentrations are the arithmetic means of the estimated water quality of the influent to the water treatment plant obtained from Section 3.0.

(5) Assumes complete system failure once every five years for 14-days over a 20-year period.

(6) Calculation of cancer risk: [(Concentration/Applicable or Relevant Standard for Cancer) x (Period of exposure in days)/(365 days x 70 years)]

(7) Calculation of hazard quotient: [(Concentration/Applicable or Relevant Standard for noncancer)]; Noncancer hazard quotient equal to or greater than 1 indicates potential for adverse health effect, depending on toxicity endpoint.

Table 6-3
Estimates of Risk Based on Treatment System Failure at the Water Treatment Plant for the Lincoln Avenue Wells

| Analyte | Primary MCL or AL (ug/L) | CA OEHHA PHG (ug/L) | CA OEHHA PHG Support Document (ug/L) | U.S. EPA Region 9 PRG (ug/L) | Applicable Standard (Cancer) (ug/L) | Applicable Standard (Non-cancer) (ug/L) | Estimated Influent Concentration ⁽¹⁾ (ug/L) | Exposure Duration (total number of days treatment system fails over 20 years) | Incremental Cancer Risk | Noncancer Hazard Quotient |
|----------------------|--------------------------|---------------------|--------------------------------------|------------------------------|-------------------------------------|---|--|---|-------------------------|---------------------------|
| CARBON TETRACHLORIDE | 0.5 | 0.1 | 5 | 0.17 ca | 0.1 | 5 | 0.57 | 56 | 1.2E-08 | 0.1 |
| PERCHLORATE | 6 | 6 | -- | 3.6 ca 3.6 nc | NA | 6 | 11.80 | 56 | NA | 2.0 |
| TRICHLOROETHYLENE | 5 | 0.8 | 1000 | 0.028 nc | 0.8 | 1000 | 10.70 | 56 | 2.9E-08 | 0.01 |
| TOTAL | | | | | | | | | 4.2E-08 | 2.1 |

(1) Estimates of risk were determined for chemicals of potential concern that were identified in Section 3.5 and listed on Table 3-20.

(2) U.S. EPA Region 9 Preliminary Remediation Goals (PRGs) accessed at <http://www.epa.gov/region09/waste/sfund/prg/files/02table.pdf>; ca = carcinogen; nc = noncarcinogen.

(3) Applicable standards (cancer and noncancer) were based on the PHG, USEPA Region 9 PRG or the MCL/AL. PHGs were used as the standard if one was available. If no PHG existed, then the lower of the USEPA Region 9 PRG value and MCL/AL was used. The MCL/AL was used when no PHG or PRG existed. In some cases, the PHG was obtained from the documentation supporting the PHG available at <http://www.oehha.ca.gov/water/phg/allphgs.html>.

(4) Influent concentrations are the arithmetic means of the estimated water quality of the influent to the water treatment plant obtained from Section 3.0.

(5) Assumes complete system failure once every five years for 14-days over a 20-year period.

(6) Calculation of cancer risk: [(Concentration/Applicable or Relevant Standard for Cancer) x (Period of exposure in days)/(365 days x 70 years)]

(7) Calculation of hazard quotient: [(Concentration/Applicable or Relevant Standard for noncancer)]; Noncancer hazard quotient equal to or greater than 1 indicates potential for adverse health effect, depending on toxicity endpoint.

TABLE 6-4**Estimates of Risk Based on Treatment System Failure at the Water Treatment Plant for the Las Flores Well**

| Analyte | Primary MCL or AL (ug/L) | CA OEHHA PHG (ug/L) | CA OEHHA PHG Support Document (ug/L) | U.S. EPA Region 9 PRG (ug/L) | Applicable Standard (Cancer) (ug/L) | Applicable Standard (Non-cancer) (ug/L) | Estimated Influent Concentration ⁽¹⁾ (ug/L) | Exposure Duration (total number of days treatment system fails over 20 years) | Incremental Cancer Risk | Noncancer Hazard Quotient |
|-------------------------------|--------------------------|---------------------|--------------------------------------|------------------------------|-------------------------------------|---|--|---|-------------------------|---------------------------|
| NITRATE (AS NO ₃) | 45,000 | 45,000 | -- | 10,000 nc | NA | 45000 | 45950 | 56 | NA | 1.0 |
| PERCHLORATE | 6 | 6 | -- | 3.6 ca 3.6 nc | NA | 6 | 6.24 | 56 | NA | 1.0 |
| TETRACHLOROETHYLENE | 5 | 0.06 | 11 | 0.66 ca | 0.06 | 11 | 10.36 | 56 | 3.8E-07 | 0.9 |
| TOTAL | | | | | | | | | 3.8E-07 | 2.9 |

(1) Estimates of risk were determined for chemicals of potential concern that were identified in Section 3.5 and listed on Table 3-20.

(2) U.S. EPA Region 9 Preliminary Remediation Goals (PRGs) accessed at <http://www.epa.gov/region09/waste/sfund/prg/files/02table.pdf>; ca = carcinogen; nc = noncarcinogen.

(3) Applicable standards (cancer and noncancer) were based on the PHG, USEPA Region 9 PRG or the MCL/AL. PHGs were used as the standard if one was available. If no PHG existed, then the lower of the USEPA Region 9 PRG value and MCL/AL was used. The MCL/AL was used when no PHG or PRG existed. In some cases, the PHG was obtained from the documentation supporting the PHG available at <http://www.oehha.ca.gov/water/phg/allphgs.html>.

(4) Influent concentrations are the arithmetic means of the estimated water quality of the influent to the water treatment plant obtained from Section 3.0.

(5) Assumes complete system failure once every five years for 14-days over a 20-year period.

(6) Calculation of cancer risk: [(Concentration/Applicable or Relevant Standard for Cancer) x (Period of exposure in days)/(365 days x 70 years)]

(7) Calculation of hazard quotient: [(Concentration/Applicable or Relevant Standard for noncancer)]; Noncancer hazard quotient equal to or greater than 1 indicates potential for adverse health effect, depending on toxicity endpoint.

Table 7-1. Summary of Water Quality Data for Pasadena Groundwater and MWD Surface Water for the Year 2002 ^(a)

| Parameter | MCL (MRDL) | PHG (MCLG) | Pasadena Wells | | MWD Weymouth Plant | | Most Recent Sampling Date | | | |
|---|---------------|---------------|----------------|-----------------|--------------------|-----------|---------------------------|--|--|--|
| | | | Average | Range | Average | Range | | | | |
| Primary Standards | | | | | | | | | | |
| Radionuclides | | | | | | | | | | |
| Alpha Radiation (pCi/L) | 15 | n/a | 7 | 1 - 16 | 5 | 2 - 6 | 1999 | | | |
| Radium (pCi/L) | 5 | n/a | 1 | 1 - 2 | ND | ND - 1 | (1) | | | |
| Uranium (pCi/L) | 20 | 0.5 | 6 | 1 - 18 | 3 | 2 - 4 | (1) | | | |
| Inorganic Chemicals | | | | | | | | | | |
| Aluminum (ppb) | 1000/200 (2) | 600 | ND | ND - 104 | 54 | ND - 164 | 2002 | | | |
| Arsenic (ppb) | 50 | n/a | ND | ND | ND | ND - 2 | 2002 | | | |
| Fluoride (ppm) | 2 | 1 | 1 | 0.9 - 1.5 | 0.2 | 0.2 - 0.3 | 2002 | | | |
| Lead (ppb) | AL=15 | 2 | ND | ND - 9 | ND | ND | 2002 | | | |
| Nitrate (ppm as N) | 10 | 10 | 4.7 | 2 - 8.6 | ND | ND - 0.5 | 2002 | | | |
| Volatile Organic Compounds | | | | | | | | | | |
| Methyl-tert-butyl-ether (ppb) | 13/5 (2) | 13 | ND | ND | ND | ND - 1 | 2002 | | | |
| Secondary Standards ⁽²⁾ | | | | | | | | | | |
| Chloride (ppm) | 500 | n/a | 24 | 13 - 33 | 85 | 74 - 98 | 2002 | | | |
| Color (units) | 15 | n/a | ND | ND | 2 | 1 - 2 | 2002 | | | |
| Corrosivity (SI) | Noncorrosive | n/a | -0.4 | (-0.5) - (-0.1) | 0.3 | 0.2 - 0.4 | 2002 | | | |
| Iron (ppb) | 300 | n/a | ND | ND - 178 | ND | ND | 2002 | | | |
| Odor Threshold (units) | 3 | n/a | ND | ND | (3) | (3) | 2002 | | | |
| Specific Conductance (umho/cm) | 1600 | n/a | 466 | 392 - 549 | 839 | 766 - 910 | 2002 | | | |
| Sulfate (ppm) | 500 | n/a | 52 | 25 - 143 | 171 | 139 - 196 | 2002 | | | |
| Total Dissolved Solids (ppm) | 1000 | n/a | 278 | 220 - 328 | 500 | 449 - 533 | 2002 | | | |
| Zinc (ppm) | 5 | n/a | 0.1 | ND - 0.7 | ND | ND | 2002 | | | |
| Unregulated Chemicals Requiring Monitoring | | | | | | | | | | |
| Boron (ppb) | AL=1000 | n/a | 145 | ND - 231 | 130 | 100 - 140 | (4) | | | |
| Perchlorate (ppb) | AL=4 | n/a | ND | ND - 4 | ND | ND | 2002 | | | |
| Vanadium (ppb) | AL=50 | n/a | 8 | ND - 15 | ND | ND | (4) | | | |
| Other Parameters | | | | | | | | | | |
| Alkalinity (ppm) | n/a | n/a | 141 | 106 - 188 | 114 | 100 - 126 | 2002 | | | |
| Calcium (ppm) | n/a | n/a | 49 | 34 - 58 | 54 | 44 - 62 | 2002 | | | |
| Hardness (ppm) | n/a | n/a | 172 | 109 - 211 | 230 | 196 - 254 | 2002 | | | |
| Magnesium (ppm) | n/a | n/a | 12 | 6 - 16 | 23 | 21 - 26 | 2002 | | | |
| pH (units) | n/a | n/a | 7.8 | 7.3 - 7.9 | 8.1 | 8.1 | 2002 | | | |
| Sodium (ppm) | n/a | n/a | 28 | 22 - 31 | 80 | 74 - 89 | 2002 | | | |

n/a – not available; ND – not detected; AL – action level

(a) Source: Pasadena Water and Power 13th Annual Drinking Water Quality Report dated June 2003; obtained from http://www.ci.pasadena.ca.us/waterandpower/water_qualityreports.asp

(1) - results are for 2000 Pasadena and 1998/99 for MWD; (2) – chemical is regulated by a secondary standard to maintain aesthetic qualities (taste, odor, color); (3) – MWD has developed a flavor-profile analysis method that can more accurately detect odor occurrences. For more information contact MWD at (213) 217-6850; (4) – results are for 2001 Pasadena and 2002 for MWD. **No MCL violation occurred in 2002.**